

City of Santa Barbara SUSTAINABLE CITY PROGRAM

First Annual Report



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The Green Team

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I. Executive Summary



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EXECUTIVE SUMMARY

Background

The Santa Barbara community has a long history working to enhance and preserve the natural environment. The oil spill of 1969 on the shores of Santa Barbara propelled and galvanized the federal government to promulgate rules and regulations to protect the marine environment. The State's recycling movement and the regulations that ultimately formalized landfill diversion mandates initiated in Santa Barbara as well. In the 1980s, City residents approved amendments to the City's Charter to establish land-use policies to "Live Within Our Resources" (Section 1507) and to limit new commercial and industrial development (Section 1508). In the late 1990s, voters approved an increase in the transient occupancy tax to raise revenue to support activities and projects to restore our urban creek corridors and improve water quality.

In spite of these and similar accomplishments, our community will always be challenged by population growth and the increasing demand on natural resources that are the underlying currency of all local economies. In keeping with our community's values and the need to reduce the burden that our daily activities have on the natural environment, the City must take a more proactive approach and work to develop a sustainable community.

As recognized by the United Nations, a sustainable community is one that meets its needs without sacrificing the ability of future generations to meet their own needs. Sustainability can also be viewed as a way of making decisions that includes more than traditional short-term cost/benefit issues but longer term and less tangible issues as well, such as pollution and natural resource depletion.

In the summer of 2005, the City Administrator's Office formed a Green Team (Team). The Team includes City managers and supervisors who are engaged in environmentally-oriented roles and/or have strong personal values with respect to living "sustainably." The work of the Team has been assembled into this First Annual Report on the City of Santa Barbara's Sustainable City Program (SCP).

Purpose

The First Annual Report is intended to serve as a foundation to develop and implement a SCP that integrates specific goals and objectives in our City government's operations and daily activities.

Executive Summary

In developing the proposed SCP, the Team's overarching goal is to accelerate the cultural change necessary for the City organization to begin to operate in ways that are truly sustainable. In undertaking this effort, the Team recognized that many "green related" activities and projects have been accomplished or are underway, while others have already been institutionalized. A successful SCP will require long term commitment by policy-makers and the community.

Inventory and Status of Current Activities and Projects

As a starting point, the Team set out to document the City's current activities and projects related to environmental protection and resource conservation. The "inventory" included identifying what the City is already doing well, what needs improvement, and what areas need attention.

The inventory is extensive and has been organized into categories described as "*urban themes*" similar to the themes contained in the *Urban Environmental Accords* (Accords) advocated by the United Nations. The Accords are described in more detail in Section III of the Report and are attached as Appendix C.

First Year Action Plan

With this information, the Team proceeded to develop a first year Action Plan to ratchet-up the City's efforts. The essential components of the proposed Action Plan and its Program Objectives are summarized below:

1. *Education for Cultural Change*

- Developing a more comprehensive understanding of "sustainability"
- Learning from others and sharing our knowledge and experience
- Joining the *International Council for Local Environmental Initiatives – Local Governments for Sustainability*
- Promoting the Sustainable City Program with and through the work of City boards, commissions, and advisory committees
- Expanding the City's public education campaigns on sustainability



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Executive Summary



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2. Intensify Current Activities

- Implementing “best practices”
- Pursuing the implementation of demonstration projects
- Conducting a Baseline CO₂ Emissions Study
- Integrating sustainable principles into the City’s business practices

3. Adopt Goals and Develop a Long Term Program for City Operations

- Drafting Fiscal Years 2007 and 2008 Financial Plan
- Developing Interim Policy Recommendations for:
 - Life-cycle Cost Benefit Criteria
 - LEED™ Certification Guidelines
 - Vehicle and Equipment Purchasing Guidelines
 - Renewable Energy Application Guidelines
- Adopting the *Urban Environmental Accords*
- Developing the Program for the City Organization and Operations, including:
 - Guiding Principles and Goals
 - Performance Indicators and Targets
 - Program Management, Staffing, and Budget Recommendations

4. Provide Leadership to Build Community Partnerships

- Promoting the adoption of the *Urban Environmental Accords* by state and other local government agencies
- Encouraging the establishment of joint agreements with these agencies to accelerate positive and constructive action on regional sustainability
- Continuing to be actively engaged in regional, educational, and collaborative efforts

Detailed descriptions of the Action Plan and its Program Objectives are described in more detail in Section III of the First Annual Report.

Executive Summary

Budget/Financial Information

The Team intends to pursue the Action Plan with existing resources provided in the budgets approved by Council under the adopted Two-Year Financial Plan for Fiscal Years 2006 and 2007. However, implementation of some Program Objectives may require the reallocation of existing resources or the identification and appropriation of new resources.

As future annual workplans and related budgets are developed, including the Six Year Capital Improvement Program, it may be determined that implementing the SCP will necessitate an increase in funding and/or a decrease in existing levels of other service(s) provided by the City. The Team believes that such adjustments may be necessary to more accurately reflect the true cost of doing business in an environmentally responsible manner.



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II. Introduction

"Human activities inflict harsh and often irreversible damage on the environment and on critical resources..... Fundamental changes are urgent if we are to avoid the collision our present course will bring about."



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INTRODUCTION

In 1992, the Union of Concerned Scientists published a statement of its view of the state of the world. Over 1,700 scientists worldwide signed it, including 104 Nobel laureates. Their statement says, in part:

WARNING

Human beings and the natural world are on a collision course. Human activities inflict harsh and often irreversible damage on the environment and on critical resources. If not checked, many of our current practices put at serious risk the future that we wish for human society and the plant and animal kingdoms, and may so alter the living world that it will be unable to sustain life in the manner that we know. Fundamental changes are urgent if we are to avoid the collision our present course will bring about.

We the undersigned, senior members of the world's scientific community, hereby warn all humanity of what lies ahead. A great change in our stewardship of the earth and the life on it is required, if vast human misery is to be avoided and our global home on this planet in not to be irretrievably mutilated.

Humankind is now in the first truly global crisis that concerns our survival as a species, the terms by which we might survive, and what it means to be human. No problem mentioned by the scientists is unsolvable in principle, if we have the wit and will to act with intelligence, foresight and dispatch.

We live in a time in which increased population growth, high levels of consumption, and the desire to feed growing economies have created escalating demands on our resources – natural, human and social – on a local, regional and global scale. These demands negatively impact the natural environment, our communities and the quality of our lives. In the face of these challenges, people worldwide have developed a growing concern for the environment and a desire to live sustainably.

Attaining a "culture of sustainability" starts with a commitment to become educated, followed by taking responsibility for our own actions and behavior presently and in the long term. For the City of

Introduction

Santa Barbara, as an organization, our immediate challenge is to do the best that we can in our day-to-day activities to implement resource conservation, advance sustainability and protect the planet's natural systems to improve the health and well-being of our community.

Given the extensive scope of the City's public services and the magnitude of the associated public infrastructure, a focused Sustainable City Program is required in order to bring about qualitative and quantitative improvements. An established Sustainable City Program will also better prepare the City to engage the community at large and other public agencies to promote constructive action.

Not only is the City examining ways to improve the City organization, operations and facilities, we are also initiating a major planning effort to engage the community in planning for a more sustainable future for Santa Barbara. Santa Barbara 2030 (formerly General Plan Update 2030) will focus primarily on the City's growth management efforts (Measure E renewal) and a reassessment of our housing build-out capacity. To accomplish this will require us to re-examine and re-evaluate the long standing Charter policy to "Live Within Our Resources." The results of this effort may include new charter policies (voter approval required), a new General Plan Sustainability Element, or a major re-working of existing General Plan Elements such as the Conservation, Land Use and Open Space Elements.

Starting at Home

The focus of the Sustainable City Program is on City government operations and facilities. The City employs over 1,500 people (full-time and part-time) and has an annual operating budget of \$189 million and a \$26 million capital program budget. With these resources the City provides a broad range of public services and has primary stewardship responsibilities for the following:

- 8,700 acres (or 13.6 square miles) of public lands and 280 miles of roadways;
- 334 public facilities comprising over 3 million square feet of building floor area;
- 59 public parks on 1,795 acres;
- 14 public parking lots serving the Downtown business and cultural districts;



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Services and public infrastructure provided by the City government supports 91,500 residents and 6 million visitors annually.



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- 8 fire stations, 2 public libraries, and a police headquarters with an emergency operations center;
- Commercial airport serving 850,000 passengers annually;
- Wharf, harbor, marina, and 6 waterfront parking lots providing exceptional public access to ocean-related activities and support facilities;
- Motor vehicle fleet of 509;
- Water treatment facilities, several reservoirs and 309 miles of water distribution lines providing potable water for Santa Barbara, Montecito, and Carpinteria;
- Wastewater treatment plant and 253 miles of wastewater collection lines; and
- 48 miles of storm drains within six separate watersheds that flow to the ocean.

The services and public infrastructure provided by the City support:

- 91,500 residents and over 6 million visitors annually;
- A diverse economy with 50,000 jobs; and
- The commercial, governmental, and cultural center for the South Coast Region.

Development of the Sustainable City Program should be guided by the following three principles:

- 1) **Establish clear goals** based on input from stakeholders and designed in response to our understanding of the community's environmental challenges;
- 2) **Build institutional support** based on the sincere commitment of elected officials and the City's executive management team; and
- 3) **Be accountable for our actions** by developing specific workplans, budgets, and reporting mechanisms (e.g., the City's P3 performance measurement system), to clearly document individual department responsibilities, applicable goals, and objectives to which each are evaluated.

Recommended Actions

To proceed with development of the Sustainable City Program, the Green Team recommends the following initial actions be taken by the City Council:

- A. Approve the establishment of the proposed Sustainable City Program for City operations and activities;
- B. Create and appoint three members of the City Council to a Sustainable City Program Committee; and
- C. Direct staff to work with the Committee to develop, for Council review and consideration, recommendations to implement the Program Objectives delineated in the first year Action Plan.

The primary focus of the Sustainable City Program Committee will be to provide feedback and input to staff for drafting *Guiding Principles and Goals, Performance Indicators and Targets, and Program Management, Staffing and Budget Recommendations* that will form the framework for institutionalizing the Sustainable City Program.



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III. Action Plan

ACTION PLAN

The components of the Green Team's proposed first year Action Plan along with corresponding Program Objectives are described as follows:

Education for Cultural Change

The keystone of the Sustainable City Program is to institute a culture of sustainability which begins with and is reinforced over time through education. In order to achieve this, we believe there has to be a major investment in education to reconnect us to our environment such that we understand what we are doing, how we are doing it, and how we can achieve our public service mission in ways that minimizes our impact on the environment. This education or re-education process will require an ongoing commitment of time and energy.

- **Developing a comprehensive understanding of "Sustainability"**

At the onset of the Program, education of City staff will need to be a priority. This can be pursued through the City's LEAP training program combined with support from outside technical assistance support organizations (e.g. ICLEI) along with attendance at select conferences.

- **Learning from others and sharing our knowledge and experience**

Cities and organizations throughout the world are working on these same challenges, and the related technologies are changing daily. We can benefit greatly from the information, experience, and technology generated through the work of these communities, with an initial focus on "best practices." Much of this information is accessible electronically from community websites and through a number of support organizations that have formed for this purpose. Having access to this information is a key component for our education objectives as well as for our future program planning.

While learning from others, we also have much to share in terms of knowledge and experience gained from our local efforts. As detailed in Section IV, we have a long history of successful activities and projects related to environmental



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sustainability. The process of sharing this knowledge and experience will by itself be educational for our organization.

- **Joining the *International Council for Local Environmental Initiatives – Local Governments for Sustainability***

The Green Team is recommending that the City join the *International Council for Local Environmental Initiatives – Local Governments for Sustainability (ICLEI)*. Founded in 1990, ICLEI provides technical assistance, training, and information services to build capacity, share knowledge, and support local governments in the implementation of sustainable development at the local level.

ICLEI is also working with the U.S. Conference of Mayors to provide a range of technical support activities to facilitate action on the U.S. Mayors Climate Protection Agreement adopted in June 2005 at the U.S. Conference of Mayors Annual Meeting. Mayor Blum voted to support this Agreement. Additional background information on this Agreement may be accessed at <http://www.usmayors.org>.

ICLEI's current annual membership fee would be \$1,200 for the City. Funding for this will be provided by Environmental Services in the Public Works Department. Additional background information on ICLEI – Local Governments for Sustainability may be accessed at <http://www.iclei.org>.

- **Promoting the Sustainable City Program with and through the work of City boards, commissions, and advisory committees**

There are 192 community members who voluntarily serve on the City's 29 existing boards, commissions, and advisory committees. While these groups are individually focused on particular aspects of City activities, all represent the community's values and are dedicated to protecting and improving the quality of life for our current residents and future generations. It is only natural to look to these boards, commissions, and advisory committees for support in promoting the Sustainable City Program.



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Action Plan

- **Expanding the City's public education campaigns on sustainability**

The City has established an impressive array of multi-media tools including City TV, City websites, and through its promotion and participation in community events. The Green Team recognizes that these tools are currently being extensively used, as described in Section IV, but also have great potential for actively promoting future Program Objectives.

Intensify Current Activities

As detailed in the body of this report, the City is actively engaged in a broad range of activities. Nonetheless, there is much more that can be done. Progress can be achieved by intensifying our current efforts. We are able to achieve more with the resources currently available. While recognizing the limitations of our current budget and overall workplan, the Green Team is recommending the following Program Objectives.

- **Implementing "best practices"**

Applying what we already know and what will be learned through intensified education (as described above) will achieve greater results. This starts with a heightened level of awareness, a sharper focus and a stronger commitment by the people in the City organization.

Some of these best practices are "Just Do Its" involving changes in day to day behavior by all of us. A simple example of a "Just Do It" is expanding the Intranet for communication City wide. Other "best practices" may require technical or focused training.

- **Pursuing implementation of demonstration projects**

Demonstration or pilot projects to promote SCP goals should be pursued as opportunities arise. Two demonstration projects underway involve the installation of photo voltaic panels on the City's Library Bookmobile and on Fire Station #2.



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- **Conducting a Baseline CO₂ Emissions Study**

One of the City's primary challenges involves reducing our toxic emissions. In order to measure our progress in this regard, a baseline study should be considered to determine our current emission levels, and in the process establish a complete inventory of the City's emissions sources to better develop plans for reducing our emissions as well as the capacity to conduct regular progress reports.

We are currently researching how such a study should be undertaken and anticipate the need for technical assistance through a professional services contract. This may require Council funding approval. The Community Environmental Council has also expressed interest in assisting with this study through collaboration with UCSB's Bren School students.

- **Integrating Sustainability Principles into Business Practices**

Training is required for key staff (who will then also become trainers) in proven models, such as *The Natural Step* (<http://www.naturalstep.org>), for transforming businesses and governments to integrate sustainability principles into their core strategies, decisions, and operations. We are currently researching potential providers for this training and anticipate the need for technical assistance through a professional services contract. This also may require Council funding approval.

Program Planning and Organizational Development

Institutionalizing the SCP to the extent that we achieve substantive results is not something that will somehow magically happen with Council approval of the recommendations associated with this Report. Council's direction in response to our recommendations will be the first of many future policy and funding decisions that lie ahead. Implementation of the Program Objectives will require hard work by all of us in the City organization.

A subcommittee of Green Team members managed by the City Administrator's Office would continue to provide the staff support for this component. Appointing a Council Committee of three members will allow the City's elected representatives to review program development as it progresses and provide guidance to this core staff team. To continue the momentum to institutionalize the SCP, the Green Team recommends the following Program Objectives.



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Action Plan

- **Drafting Recommendations for the Fiscal Years 2007 and 2008 Financial Plan**

The SCP work plan objectives and budget information should be developed for inclusion in the next two year budget proposal. Included in this would be activities and projects, P³ performance management standards, and capital projects.

- **Developing Interim Policy Recommendations**

In order to more effectively proceed with SCP activities and projects, interim policy direction is needed to establish the following:

- **Life-cycle Cost/Benefit Criteria** that provides clear and consistent guidelines for assessing lifecycle costs, and includes an evaluation of external costs not typically included in cost/benefit analyses for use in evaluating proposed capital projects and other proposed significant new initiatives;
- **LEED™ Certification Guidelines** for City capital projects that involve new construction or major renovations of City facilities;
- **Vehicle and Equipment Purchasing Guidelines** for conversion of the City's fleet to hybrid or alternative-fuel vehicles and replacement of the City's fuel-powered equipment with more fuel-efficient or electric motors; and
- **Renewable Energy Application Guidelines** for installation of appropriate types of renewable energy systems on City facilities.

- **Adopting the *Urban Environmental Accords***

The Sustainable City Program should have a structure or format that builds on a model being used by cities worldwide. This will facilitate communication and provide a common framework. Shared approaches lead to better tools for evaluation.

The *Urban Environmental Accords* advocated by the United Nations provide a comprehensive structure for developing a sustainable community program, yet are developed in a way that requires they be tailored to the individual community. The latest version of the *Accords* (Appendix C) was updated and adopted by participant cities from around the world at the United Nations Environment Programme World Environment Day held during June 2005 in San Francisco. The *Urban Accords* are a recognized template for "thinking globally and acting locally."



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Action Plan

At Council's direction, staff will draft and return to Council with a resolution authorizing the Mayor, on behalf of the City, to be a signatory of the *Urban Environmental Accords* promoted by the United Nations and to include actions, specific to the City's SCP, related to each of the *Urban Themes* described in the *Accords*.

Please note that the Urban Themes in this Report are the same as those contained in the *Accords* except for the Public Education theme which is added for the City.

- **Developing the Program for the City Organization and Operations**

A more detailed long range program plan should be developed. This draft program plan would be focused on the City organization and its operations and, at a minimum, would include the following components:

- **Guiding Principles and Goals** that would, once adopted by the Council, provide the basis from which effective and sustainable City organizational and operating decisions can be made;
- **Performance Indicators and Targets** for projects and activities within each of the *Urban Themes* delineated in the *Urban Environmental Accords* and used as the template for organizing the workplan and status reports on current sustainable activities in the City; and
- **Program Management, Staffing and Budget Recommendations** for Council's review and action.

Provide Leadership to Build Community Partnerships

While the Sustainable City Program is primarily focused on the day-to-day operations and activities of the City organization, it is also important that the City continue to build working relationships with other government agencies, community based organizations and the business sector. Stronger relationships will lead to more extensive collaboration and greater overall success. The following Program Objectives are recommended.

- **Promoting adoption of the *Urban Environmental Accords* by state and other local government agencies**

The *Accords*, if adopted by government agencies throughout the South Coast, would provide a common template for future



Action Plan

policy and program direction. Although the Accords have been crafted for use by cities, they could be modified for use by the County, UCSB, SBCC, public school districts, and special districts.

- **Encouraging the establishment of joint agreements with these agencies to accelerate positive and constructive action on regional sustainability**

City Staff has been working with representatives from the County, the cities of Goleta and Carpinteria, and Southern California Edison to form a regional partnership, *Greater Santa Barbara Energy Efficiency Partnership*, to promote energy conservation. A program description for the *Partnership* has been drafted and is now under review. Council's consideration and formal approval of the City's participation is tentatively scheduled for early 2006.

- **Continuing to be actively engaged in regional, educational, and collaborative efforts**

The Green Team is recommending that the City continue to be actively engaged in these and similar efforts and events as appropriate and as resources allow:

- Solid Waste Strategic Plan for Maximizing Diversion
- Santa Barbara County Association of Government's 101 In Motion – Commuter Rail Project
- Economic Community Project – Regional Growth Impact Study
- Community Environmental Council's (CEC) - Fossil Free by 2033
- Greater Santa Barbara Energy Efficiency Partnership
- John Knott Retreat on the "New American City" (March 2006)
- University of California at Santa Barbara's (UCSB) Annual Sustainability Conference (June, 2006)
- UCSB Bren School's Masters Thesis Projects
- Santa Barbara School Districts – Joint Use Agreement
- City Creeks/County Project Clean Water Collaboration Education Projects
- Santa Barbara County Integrated Regional Watershed Plan
- Southern California Wetlands Recovery Project, Santa Barbara County Task Force



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- California Coastal Coalition
- Santa Barbara Contractor's Association Built Green Program
- The Sustainability Project's Green Building Alliance
- COAST (Coalition for Sustainable Transportation)
- Santa Barbara County Multi-Jurisdictional Solid Waste Task Group

Action Plan



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IV. Inventory and Status

INVENTORY AND STATUS OF CURRENT ACTIVITIES AND PROJECTS

The information in the Inventory and Status of Current Activities and Projects is organized for presentation in a series of “*Urban Themes*” as described above, which constitute the scope of the challenges involved with achieving environmental sustainability. For each of the *Urban Themes*, the information is categorized in the following four sections.

1. **Where We Are Now:**

The Report starts with an inventory of our track record of activities and projects that have been completed, are underway or are on-going. Those that are underway or are on-going will be continued, and represent a major component of the NTAP of the Sustainable City Program.

2. **Potential Additional Opportunities:**

The items identified within this section are: a) on hold pending identification of additional funding; or b) in a pre-development or pre-implementation phase; or c) are undergoing research to determine their feasibility. Work on these items will proceed as part of the NTAP based on the availability of time and resources.

3. **Issues, Barriers and Policy Discussion:**

This section is intended to provide more detailed information on the major considerations, or hurdles of balancing resources, that are being addressed collectively by the many agencies and organizations worldwide who are engaged in the work of building sustainable communities. Work on these items as part of the NTAP will proceed in the context of our on-going activities.

4. **References and Resource Information:**

This section lists the numerous existing City policy and program documents related to the respective topics along with websites for access to local, regional, national, and international organizations and agencies that are also engaged in the work of building sustainable communities.



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ENERGY – Renewables, Efficiency & Climate Change

Reliance on fossil fuels creates pollution, has political ramifications world wide, and is ultimately not sustainable. Policies and projects that shift the community's reliance away from fossil fuels can reduce air pollution and increase the stability of our energy supply. For purposes of context, a typical Southern California home has an average power demand of about 1 kilowatt and an average energy consumption of about 500 kilowatt-hours per month.

1. Where We Are Now

Energy Efficiency

- The City is conducting ongoing energy audits at City facilities in conjunction with Southern California Edison and Southern California Gas Company;
- The City has received grant funding for energy-efficiency improvements incorporated into facility upgrades and remodels (e.g. Heating Ventilation and Air Conditioning (HVAC) replacements and lighting upgrades);
- 40% of fluorescent lighting in City facilities has been converted to high-efficiency components; compact fluorescent lighting is now used in place of incandescent bulbs (75% reduction in energy use);
- High efficiency “cool roof” coatings have been applied at City Hall and City Corporation Yard;
- All traffic signals have been converted from incandescent bulbs to Light Emitting Diodes (LED) – a 70% reduction in energy use;
- All street lights use high efficiency high pressure sodium or metal halide lamps;
- 6% of City vehicle fleet are currently hybrids or other alternative fuel vehicles;
- Efficiency improvements at El Estero Wastewater Treatment Plant (the City's highest energy user) have reduced energy use by approximately 25%;
- Off-peak hours pumping is used whenever feasible in the City's Water Distribution System;
- The City airport is equipped with pilot-controlled lighting for general aviation runways to eliminate the need for constant illumination;

A. Energy



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Energy

- On-demand water heaters have been installed at Airport facilities;
- Inefficient airfield lighting cables and transformers have been replaced; light bulbs and fixtures on Airport runways and taxiways have been upgraded to higher efficiency models;
- Occupancy sensors have been installed at Airport facilities; and
- 38,000 free compact fluorescent light bulbs were distributed to City residents during the 2001-2002 power-crises (an estimated peak load reduction of 1,000 kilowatts and an energy savings of 2 million kilowatt-hours per year).

Renewable Energy

- Electric power is being produced from waste gas at El Estero Wastewater Treatment Plant with a fuel cell (an amount equivalent to the demand of approximately 500 homes);
- Solar electric systems have been installed to power communication sites at Hope Reservoir and Gibraltar Dam;
- A solar electric system (~20 kilowatt) being designed for Fire Station No. 2 with the potential to meet 85% of the facility's load;
- A hydro-electric facility (750 kilowatts) was constructed on the Gibraltar Dam penstock at Lauro Reservoir in 1985. However, this is currently not economically feasible to operate due to federal regulatory requirements and associated expenses;
- A Municipal Solar Utility was initiated in 1983 to promote leased solar water heating systems. However, high lease rates and changes in state tax legislation precluded an effective program;
- Solar water heating brochures have been produced for distribution to City residents;
- "Solar zoning" was adopted in 1986 for all residential zones in which building height limitations were established to reduce shading of adjacent properties to protect present and future uses of solar energy;
- City staff are currently meeting with solar industry representatives to implement design guidelines for solar energy installations;
- A Green Building incentive program was approved by City Council in November, 2005.



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Energy

The City may wish to formalize an economic feasibility analysis of solar electric (photovoltaic) technology for powering City facilities, to guide future decisions regarding solar electric investments.

2. **Potential Additional Opportunities**

- Look for additional efficiency improvements through a continuing schedule of energy audits at City facilities;
- Inventory opportunities to incorporate additional daylighting in City facilities;
- Re-examine feasibility of micro-cogeneration system at Los Baños Pool for on-site production of thermal energy (for pool heating) and electricity;
- Update analysis of cost effectiveness and potential uses of solar water heating;
- Investigate potential uses of electric power from the Gibraltar hydroelectric facility that would not trigger Federal regulatory burdens;
- Formalize an economic feasibility analysis of solar electric (photovoltaic) technology for powering City facilities, to guide decisions regarding solar electric investments;
- Formalize a life-cycle costing method to be used in evaluating options for the construction or purchase of energy-consuming equipment or facilities;
- Develop public information material and standardized design, permitting, and inspection procedures for solar electric projects proposed by City residents;
- Update energy conservation components of employee training documents; and
- Conduct analyses aimed at setting aggressive, yet feasible, goals for reduced energy use, improved efficiency in City buildings, alternative-fuel vehicles, and increased use of renewable energy.

3. **Issues, Barriers, and Policy Discussion**

It is commonly acknowledged that energy management should follow a “conserve first, then produce” rule. Maximizing efficiency is generally the most cost-effective first step, reducing the power requirements to be met with renewable energy sources. This concept is applicable to City facilities.

It is expected that efficiency improvements will continue to develop as technology matures and that the City will take advantage of these improvements.

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Energy

With regard to renewable energy production, the most likely candidate for Santa Barbara is solar energy. The current high cost of solar electric should be carefully examined on a life-cycle basis to aid in appropriate decision making about the extent to which solar power can be used in City facilities. Due to the long equipment life and extended payback periods associated with solar electric systems, assumptions regarding the future price for conventional energy will become increasingly important.

4. **References and Additional Resources**

- Community Environmental Council Energy Program web site: www.communityenvironmentalcouncil.org/energyprograms
- California Energy Commission web site: www.energy.ca.gov
- Southern California Edison Company – Rebates & Savings web site: www.sce.com/RebatesandSavings
- Southern California Gas Company – Rebates and Conservation web site: www.socalgas.com



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WASTE REDUCTION – Composting, Recycling and Source Reduction

B. Waste Reduction

1. Where We Are Now

Solid Waste Management in General

City employees are generally avid recyclers, but many offices recently lacked the proper infrastructure to make recycling and waste reduction easy, successful, and universal. All staff members now have the means to recycle, compost, and reduce waste which has resulted in higher recovery and reduced disposal.

Educational materials have been provided on how to maximize diversion. The City is moving beyond conventional recycling into composting, the purchase of recycled products, and source reduction.

Composting

Recent efforts to compost the City's organic waste stream from offices and break rooms have resulted in the following recent accomplishments:

- Foodscrap and coffee grounds are now collected and composted at 4 locations in City offices;
- Since 2004, staff has composted over 500 pounds of foodscrap and coffee grounds;
- Environmental Services operates a demonstration garden utilizing City-generated compost; and
- The City recently held its first Zero Waste Event at the Annual Employee Picnic by composting all foodscrap and serving utensils.

Recycling

- Staff have replaced approximately 700 large desk side trash containers with large recycling and small trash combinations;
- Seventy 35-gallon centralized recycling carts have been distributed around City offices for improved ease of collection;
- Over 150 35-gallon recycling carts have been distributed at Santa Barbara City College;



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Waste Reduction

The City recently held it's first Zero Waste Event at the Annual Employee Picnic through recycling and composting all foodscraps and serving utensils



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- Over 480 recycling cans have been placed in City Parks and Harbor areas;
- Over 140 new trash and recycling containers have been installed on lower State Street;
- Recycling containers have been strategically placed at the City's Airport Terminal;
- 5 trash enclosures have been constructed for Airport tenants to accommodate additional recyclables;
- Used oil collection stations for general aviation pilots have been provided at the Airport, and
- Many tons of construction and demolition debris have been recycled from City projects.

Source Reduction

- Reusable coffee mugs have been provided to over 500 City employees; and
- The Parks and Recreation Department is using mulching mowers to reduce green waste and the need for fertilizer.

Diversion Progress

- Citywide diversion from landfills increased from 29% in 1995 to 51% in 2002;
- Diversion at City Hall is currently 72% and expected to be as high as 95% with planned changes;
- 101,500 tons of material was diverted citywide from landfills in 2003; and
- The City diverted all of its greenwaste at the Airport through "grasscycling," franchised greenwaste collection and on-site mulching.

Environmentally Friendly Products

- All City departments now use or have access to 30% post-consumer recycled content paper;
- Streets Division and the Airport actively use recycled asphalt in road repair;
- Recycled rubber sidewalks are now being tested at various sites around the City;

Waste Reduction

- City parking stops are made from recycled plastic rather than concrete;
- Mulch is being used in City parks and at the golf course to reduce weeds and water use, divert green waste from the landfill, and improve soil profiles;
- Construction practices are being employed that reuse waste materials; and
- Recycled materials are being used in playground construction and maintenance - including recycled tires for fall surfaces, mulch fall surfacing, pressure treated wood with a non-arsenic base, sealed Kids World wood and permeable paving.

2. **Potential Additional Opportunities**

Solid Waste Management in General

Many opportunities remain in conventional recycling. Staff estimates that the City will achieve more diversion by providing additional incentives as well as mandating recycling. While recycling is expanded, new programs can be developed to divert other waste streams such as foodscrap and construction materials. Although not well understood, source reduction remains the most cost-effective strategy for diversion from landfills and has the potential to make a significant impact in City offices. Long-term viability of the waste infrastructure also requires research into new technologies such as a material recovery facility (MRF) to sort waste into recoverable commodities and, potentially, conversion technologies to produce energy from waste.

Composting

- Implement Pilot Foodscrap Composting Program for business which may potentially result in an additional 1,500 tons of material being diverted from landfills.

Recycling

- Partner with Santa Barbara Schools and work to double their diversion rate through an improved recycling infrastructure and well-developed recycling educational programs;
- Continue to ensure recycling containers are available in all City parks and public spaces;



Waste Reduction

- Implement a Construction and Demolition Recycling Ordinance that will require at the diversion of at least 75% of all new construction waste and 50% of all demolition;
- Implement a mandatory commercial recycling ordinance which will require commercial establishments to recycle;
- Provide additional free greenwaste containers to residents;
- Provide additional rate incentives to ensure recycling is more cost effective than trash;
- Provide free recycling containers and consultation to commercial establishments within the City;
- Study the feasibility of establishing a local material recovery facility (MRF) in Santa Barbara;
- Explore the feasibility of establishing a conversion technology facility on the South Coast; and
- Promote Green Building initiatives that can reduce waste and increase recycling.

Source Reduction

- Save 30% on paper towel and office paper usage and associated costs. (paper is 1/10 of total cost of a photocopy); and
- Increase City Facilities' diversion from landfills through reduction in paper towel and disposal coffee cup use, increased composting, double-sided printing, electronic forms and templates, and a well-refined recycling infrastructure.

Environmentally Friendly Products

- Develop a comprehensive Green Purchasing Policy (GPP) that promotes the use of products and supplies that minimize the City's impact on the environment and human health. These include products made of recycled materials, lower toxicity, those which use less packaging.



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3. **Issues, Barriers, and Policy Discussion**

The greatest barrier to increased diversion and environmental initiatives generally is simple resistance to change. Some individuals are uncomfortable with change even if they recognize that may be an improvement. When the current system is functional, the unknown effect of changing it can seem like an unnecessary risk. Acceptance of change is possible by including affected parties in strategizing and decision making, and giving them as much information as possible about why change is needed.

The City's Solid Waste Strategic Plan (Plan) was adopted by City Council on September 13, 2005. The adoption of the Plan provided the necessary political support for the above-mentioned cutting-edge environmental policies as it relates to recycling and waste reduction. All of the diversion opportunities listed above have been approved by City Council as part of the Plan.

A barrier that will continue to play a part in the implementation of these programs is buy-in by both by the general public and City employees. Environmental Services staff is promoting a change in the traditional behaviors and attitudes towards trash and recycling. Through education and time, staff believes this barrier will be overcome.

Finally, resources may ultimately prove to be a barrier to the implementation of some of the above projects and activities, as the Plan is promoting a number of broad, far-reaching initiatives. The City does not currently possess the needed staffing to effectively implement and promote these initiatives.

A MRF and conversion technology facility would both involve significant regional cooperation as these facilities would impact a number of jurisdictions on the South Coast. The Green Purchasing Policy (GPP) will require significant inter-departmental cooperation and accountability to ensure that all groups are educated about the most environmentally friendly materials available and that all departments are participating to the fullest extent possible.

Waste Reduction



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Waste Reduction

4. References and Additional Resources

- City of Santa Barbara Environmental Services web page, www.SBrecycles.com
- City of Santa Barbara Solid Waste Strategic Plan, July 22, 2005, on the web at:
http://www.santabarbaraca.gov/SolidWaste/pdf/Solid_Waste_Strategic_Plan.pdf
- Californians Against Waste web site:
<http://cawrecycles.org>
- California Integrated Waste management Board web site: www.ciwmb.ca.gov
- California Resource Recovery and Conservation web site: <http://www.crra.com/front.html>
- Conservatree web site: <http://conservatree.com/>



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URBAN DESIGN – Green Buildings, Urban Planning and Livable Neighborhoods

C. Urban Design

The City's General Plan guides decision-making regarding planning and development. State Law requires that land use and development be consistent with the General Plan. In Santa Barbara, the development / design review process has a tremendous impact on physical development changes. The City also owns and manages a significant amount of the property (buildings, parkland, infrastructure, etc.) that influences the overall built environment of the City. Our first challenge will be to demonstrate and model sustainable urban design in the management of City properties. Once this is accomplished, we can expand our efforts outward to include private property by developing new regulations and incentives for sustainable community development.

1. Where We Are Now

Construction Projects

- Redevelopment Agency staff are working on the conceptual development of an Urban Village at the corner of Carrillo and Chapala Streets, which will include retail, commercial, housing and the Municipal Transit District's (MTD) main terminal;
- A Platinum level Leadership in Energy and Environmental Design (LEED) "green" building is planned for Airport Parcel 22; and
- The Airline Terminal expansion design team is exploring the various LEED certification criteria.

Green Building Programs

- A voluntary Green Building Incentive Program was developed by the Community Development Department and the Santa Barbara Contractor's Association; and
- "Green" development guidelines are emerging for major developments such as the Cottage Hospital Project.

Training & Education

- One City staff member is currently certified as a LEED accredited professional.



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Urban Design

The City's Circulation Element is designed to achieve equality of choice among all modes of transportation and enhance various forms of transportation.



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Plans, Policies, and Guidelines

- The City's General Plan, in concert with key Charter provisions such as 1507 & 8, will continue to manage the overall level of growth and development through 2010. Since 1995, the City has promoted an aggressive program to remove governmental constraints and encourage mixed-use and infill development. Implementation of these strategies has been very successful;
- Circulation Element - the overall vision of the Circulation Element is to achieve equality of choice among all modes of transportation and enhance various forms of transportation;
- Housing Element establishes community goals and policies for new housing programs and development, including Policy 4.6 which encourages resource conservation measures in new and rehabilitated residential developments and mixed use projects;
- The City's Urban Design Guidelines encourage development that is compatible with the existing environment, creates and maintains pedestrian facilities and amenities, designs and locates transit facilities to promote alternative transportation, and encourages the provision of bicycle facilities to promote bicycling as a more viable and convenient mode of transportation;
- The Architectural Board of Review guidelines address solar panels, skylights, energy efficiency and green building design; the Landscape Guidelines address sustainability principles including waste management, natural features, graded areas, erosion, water efficiency, irrigated landscapes, natural drainage, permeability and percolation, and on-site retention;
- The City's Bicycle Master Plan is intended to give guidance to the development of the physical bicycle system as well as education, promotion, enforcement, public policy, and information distribution; and
- The Draft Pedestrian Master Plan's primary goal is to address remaining obstacles to increased walking, such as deficient facilities, concerns about safety, attractiveness and appeal, and a lack of connectivity.

2. Potential Additional Opportunities

Construction Programs

- The Sustainable City Program is an opportunity to educate the community about what sustainability means through bricks and mortar projects, operational improvements, and the

establishment of performance indicators and targets. This effort is also an opportunity for the citizens to review, through the Santa Barbara 2030 outreach process, how sustainable programs could apply on a broader community-wide scale.

- Continue to develop and expand the City's Green Building Incentive Program in coordination with the Santa Barbara Contractor's Association and the County's Innovative Building Review Program;
- Offer incentives such as expedited permitting for applicants choosing to "build green";
- Make funds available for energy efficiency improvements for affordable housing projects and programs;
- Pursue all feasible opportunities to encourage energy conservation and solar retrofit in the City's existing and future housing stock;
- Pursue all feasible opportunities to reduce, reuse, and recycle building and construction materials on public and private developments; and
- Explore opportunities to incorporate "green" lease terms in lease agreements for City owned property to encourage environmentally sound operation, renovation, maintenance and use of City facilities; and
- Develop educational materials for residents and commercial permit applicants describing "green building" techniques and opportunities.

Training & Education

- Encourage more City employees to achieve LEED certification.

Plans, Policies, and Guidelines

- Santa Barbara 2030 is underway to renew the City's growth management program, reassess the housing build-out capacity, and explore how the Charter mandate to "Live Within Our Resources" can be broadened to include other concepts of sustainability;
- Institute a "Green Building" Policy for all future City-owned and/or funded buildings;
- The draft Neighborhood Preservation Ordinance update contains many sustainable building elements; and



- Update the ABR and HLC design guidelines to incorporate energy efficient design practices.

3. **Issues, Barriers, and Policy Discussion**

Upfront Costs

Green building offers numerous benefits the City and its residents through reducing water and energy usage, recycling and reuse, toxics reduction, and smart land use. Simply put, it reduces human impact on the environment. However, one main barrier for green building is cost. Oftentimes building green requires more careful planning and potentially higher upfront costs. Even though there are often enormous cost savings in the long run due to resource use efficiency, the higher upfront costs can be a deterrent.

Education & Standardization

A second barrier is that green building is a relatively new trend in the building community leading to a lack of knowledge regarding its possibilities and problems. Developers, engineers, architects, and planners are still learning about green building methods and their application. Many of these green building concepts challenge traditional building strategies and will take time to be accepted by those in the building community.

Additionally, members of the public are often unaware of green building techniques that are available and therefore do not request their use when constructing or remodeling homes. This novelty has also led to a variety of competing green standards in use across the country. While the LEED standard has gained nationwide acceptance, other competing standards can cause confusion and frustration when deciding on a green standard for use in construction.

Architectural Review

The City's broad scope of design review programs and activities reflect the City's commitment to strong urban design, which in turn has promoted improved quality of life as well as economic benefits for both residents and guests. However, on occasion, design review based primarily on aesthetic considerations has proved to be



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problematic for “green” building design components such as the installation rooftop solar panels.

Urban Design

4. **References and Additional Resources**

- City of Santa Barbara Transportation Division home page:
www.santabarbaraca.gov/Government/Departments/PW/trans_division_main.htm
- Santa Barbara County Association of Governments website: www.sbcag.org
- City of Santa Barbara General Plan
- City of Santa Barbara General Plan - Circulation Element
- City of Santa Barbara General Plan – Land Use Element
- City of Santa Barbara General Plan – Housing Element
- Santa Barbara Metropolitan Transit District website: www.sbmtd.gov
- Built Green Santa Barbara : www.builtgreensb.org is part of the Santa Barbara Contractors Association and offers a rating system for greening your home.
- United States Green Building Council: www.usgbc.org provides the major rating system for green buildings.
- Building Green: <http://www.buildinggreen.com> offers information designed to help improve the environmental performance of buildings.
- Oikos <http://www.oikos.com>, the Greek word for home, is devoted to serving professionals whose work promotes sustainable design and construction.
- Alameda County www.stopwaste.org offers tremendous amounts of information regarding green building.
- County of Santa Barbara Innovative Review Committee <http://www.countyofsb.org/plandev/bldg-safety/ibrp/default.html> offers incentives to residents and businesses to build green.



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Urban Design

- www.greenerbuildings.com This website offers tools and resources for builders to design buildings to be more sustainable.
- Environmental Protection Agency's Energy Star <http://www.energystar.gov/> program highlights the various products certified under this program. These products are more energy efficient than standard appliances.



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URBAN NATURE – Parks, Habitat Restoration & Wildlife

The City of Santa Barbara encompasses an extremely diverse holding of public property in the form of developed and natural open spaces, creeks, landscaped medians, and shoreline. There is an inherent responsibility to provide responsible stewardship for these natural areas, balanced with the desire for public access for recreational purposes. “Green” opportunities abound, ranging from the design, construction and maintenance of parks and open spaces, to protection and restoration of riparian corridors and estuaries.

1. Where We Are Now

Parks and Urban Open Spaces

Santa Barbara possesses a diverse park and street tree system, which boasts a 100-year legacy of horticultural experimentation and leadership. The 59 parks and open spaces (1,795 acres) contain 22 playgrounds, three community gardens and one children’s orchard. Within this inventory are 11 open space parks (1182 acres) featuring extensive natural areas and wildlife habitat, plus water resource back-country lands. Additional natural resources managed by the City include:

- 3.4 linear miles of beaches, with operations including outfall clean-up, recycling of trash and green waste to reduce ocean pollution;
- An urban forest of 35,500 trees which enhances the aesthetics of neighborhoods, improves climate and albedo rate and reduces energy costs for cooling and mitigation of night sky light pollution;
- 80 planted parkways and medians providing aesthetic enhancement and reduction of impermeable surfaces;
- An extensive trail system (including links to the Los Padres National Forest) that allows access to recreation within natural areas, while managed to preserve habitat.

Management Practices

- Integrated Pest Management (IPM): an effective and environmentally sensitive approach to pest management used to minimize health, environmental and financial risks. IPM seeks to use the most benign

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methods of control (including tolerance of the pest) before resorting to more intense methods. A City IPM Advisory Committee grants limited waivers on case-by-case basis.

- Pesticide Hazard and Exposure Reduction Program: The PHAER Zone model is an emerging decision-making model for greatly reducing the use of pesticides in parks and open spaces. Zones with the greatest likelihood of exposure have the strictest constraints and only the most benign approved methods can be used. Zones with lower risk of exposure allow a broader use of materials and methods.
- State-of-the-art central irrigation management using real-time weather information to continually adjust irrigation schedules via computer.
- Trail construction and repair emphasizes the use of indigenous materials for trail stabilization. Regular trail maintenance reduces erosion and eutrophication of creeks.

Design Philosophy

New parks and major maintenance projects strive to integrate design features that promote environmental stewardship. These include state-of-the-art irrigation systems that are automatically reprogrammed based on real-time weather conditions; use of recycled materials in benches, lawn edgings, playground equipment and safety fall-surfacing; use of permeable paving materials; native and Mediterranean plants adapted to local soil and climate conditions; and planting designs that allow plants to grow naturally with minimal need for pruning and maintenance. In addition:

- Plaza Vera Cruz and Stevens Park playgrounds were built of 90% recycled post-consumer materials; and
- 100% of City playgrounds use either recycled wood products, or recycled rubber as fall surfacing.

Riparian Habitat Restoration

The Creeks Division has developed a number of capital improvement projects that are designed to not only improve the quality of our natural waterways and ocean, but provide neighborhood education and outreach,

Urban Nature

aesthetic, and recreational benefits for the public. These capital projects include:

- Restoration of 1.5 acres of Old Mission Creek at Bohnett Park, featuring two bioswales to improve water quality;
- Plans for a 2-acre restoration of Arroyo Burro Estuary and Mesa Creek, which will include the first “liberation” of a creek from a concrete culvert on the South Coast;
- Designing creek restoration and wetlands enhancement projects on an additional 10 acres in the Arroyo Burro and Mission Creek watersheds; and
- Construction of a native plant nursery to grow local native plants for riparian restoration projects.

Policies and Operations

- Developing long-range Watershed Action Plans for the four major watersheds and establishment of community priorities for creek restoration and water quality improvement; and
- Discharge of water into Mission Creek at key times to support fish habitat.

Airport Native Habitat Restoration Efforts

Airport property includes approximately 400 acres of the Goleta Slough. In association with Airport projects the Airport has completed several capital projects that are designed to improve the quality of the Goleta Slough and its tributaries. The Airport has also worked to assemble a collaborative group of stakeholders with a common interest in sound management of the Slough. These capital projects include:

- Restoration and successful maintenance of approximately 30 acres of native habitat in the Goleta Slough associated with the Safety Area Grading Project;
- Tidal circulation experiment in portions of Goleta Slough. This project restored tidal circulation to a portion of the Goleta Slough and is exploring how the change influences bird behavior. By restoring natural tidal habitat, the Airport hopes to reduce aircraft bird strike hazards by encouraging smaller indigenous shore birds to populate Airport portions of the Slough rather than larger migratory waterfowl that are

The City's Creeks Division has developed a number of capital improvement projects that are designed to not only improve the quality of our natural waterways and ocean, but provide neighborhood education and outreach, aesthetic, and recreational benefits for the public.



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currently attracted to basins that lack tidal influence. Successful results may lead to tidal circulation being restored in additional portions of the slough;

- Development and operation of a native plant nursery to supply local native plants for Airfield Safety Project restoration efforts in the Goleta Slough;
- Restoration and continuing maintenance of a 1000' section of Las Vegas Creek through Twin Lakes Golf Course;
- Restoration and maintenance of a 1,400 foot section of drainage swale between Firestone Road and Hollister Avenue;
- Other smaller scale native habitat restoration projects that have been completed at the Airport include:
 - Ward Memorial site
 - Hollister Avenue site
 - Airfield drainage site
 - Fuel farm site, and
- A major restoration project has also begun in association with the Airfield Safety Project. When the project is completed it will restore native habitat to approximately 40 additional acres of the Goleta Slough.

2. Potential Additional Opportunities

- Plans for grassland and Coastal Sage Scrub restoration, removal of invasive plant species;
- Continue to work jointly with Santa Barbara City College to establish Bluff restoration;
- Establish management zone for beach area, including a habitat management area for Western Snowy Plover, and allowing safe recreational areas;
- Design and construct interpretative programs for beaches, Andree Clark Bird Refuge and Sycamore Creek to expand public environmental education;
- Expand resource mapping for various objectives in natural areas, and for identification of additional open space opportunities;
- Expand policy of reusing materials in parks and open space for construction and maintenance projects;

- Collaborate with private landowners on creek restoration projects;
- Construct additional capital improvements to parks that will enhance Integrated Pest Management (IPM) implementation; and
- Identify, designate and develop additional community gardens.

3. Issues, Barriers, and Policy Discussion

The cost of natural area restoration is high and lead time is long due to environmental review and permitting requirements. The cost of maintaining restored sites is also high, but necessary to allow native species to become established and discourage competition from non-native species. Innovative solutions to reduce the cost of maintenance are needed.

Habitat restoration and maintenance projects occasionally involve application of herbicides as a best management practice to reduce competition by non-native species. This practice while consistent with the IPM strategy, conflicts with the goal of becoming pesticide free.

A commonly used standard (National Recreation and Parks Association) for cities is to provide neighborhood parks within walking-distance (1/4-mile) of all residents, and community parks within 1/2-mile. The recent baseline study for the General Plan Update indicates that a number of neighborhoods do not meet these criteria. Given the scarcity of developable parkland and the emphasis on urban infill projects in the commercial core of the City, new approaches will be needed to fulfilling the demand for adequate parkland. The City needs to further investigate development TDRs in open space areas.

Maintenance of urban park areas as IPM sites requires renovation of planting areas to make implementation more effective. Establishing development fees could be considered to support park and natural area acquisitions.



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4. **References and Additional Resources**

- Waterfront Department Annual Review-Clean Water Program started in 2002;
- Integrated Pest Management Strategy, January 2004:
http://www.santabarbaraca.gov/Resident/Community/Parks_and_Beaches/Integrated_Pest_Management.htm
- City of Santa Barbara Street Tree Program:
http://www.santabarbaraca.gov/Resident/Community/Parks_and_Beaches/Street_Trees.html
- UC Davis IPM Online: Statewide Integrated Pest Management Program
<http://www.axp.ipm.ucdavis.edu/>
- City of Seattle Parks IPM Program
<http://www.cityofseattle.net/parks/FAQ.htm#pest>
- “Groundswell: Stories of Saving Places, Finding Community”, Author: Alex Hopkins; published by *The Trust for Land* in LandLink newsletter, October 2005.

TRANSPORTATION – Public Transportation, Clean Vehicles, Reducing Congestion

City residents, visitors, and workers start each trip as pedestrians. They might also take advantage of the multiple modes of transportation available to them: bicycles, personal automobiles, MTD buses and shuttles, and regional transit including bus and rail. Intelligent management of the movement within and to our City offers an opportunity to educate and encourage responsible use of fuel and land while improving air and water quality.

Transportation provides access to employment, medical services, tourism destinations, social activities, recreation, and housing in the City of Santa Barbara. Like most urban areas, the City is also a destination for visitors, and therefore sustainable transportation solutions must provide both local and regional access.

With a focus on moving people and goods rather than vehicles, the City has adopted policies that strive to sustain or increase economic vitality and quality of life by encouraging alternative forms of transportation and mobility. These alternatives need to be so available and so attractive that use of an automobile is a choice, not a necessity.

We seek also to reduce traffic congestion, not only because of its impact on our time, but to reduce the consumption of resources, and ease the polluting effect of idling vehicles. Strategies for traffic reduction include ride-sharing, telecommuting and flexible work schedules, creating and promoting a walkable community, and making alternative transportation more attractive to visitors and residents. Walking and bicycling are the healthiest and least resource-intensive modes of travel. By pairing walking and cycling with a public transport that has priority over cars, the City can save valuable space and energy.

Additionally, the City owns and maintains a large fleet of vehicles and mobile equipment ranging from bicycles, sedans, police cars, motorcycles and vans, to trucks and heavy construction equipment. Proper maintenance and operation of these vehicles helps to conserve fuel and reduce vehicle emissions, as does the shift to purchasing low-polluting technologies. Furthermore, staff is encouraged to reduce the number of trips made by car for site visits and meetings through telecommuting or alternative transportation.

E. Transportation



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Transportation

1. Where We Are Now

Programs Limited to City Staff

Carpooling is an efficient way to reduce the number of automobiles on the road. Preferential parking is provided for formal City carpools with spaces designated at many city-owned parking lots (City Hall—4; Community Development—5; and Police Department—15).

Flexible work schedules and telecommuting reduce the number of vehicle trips made during the peak hour. Additionally, the City provides incentives to encourage employees to commute by bicycles, including:

- Fleets of bicycles available at five buildings for personal and work related local trips;
- Monthly *Street Skills for Cyclists* training for staff (approximately 70 “graduates”);
- Periodic free bike tune-ups for bicycle commuters;
- The Team Bike Challenge (53 City participants in June 2005); and
- Shower facilities in several City buildings.

Programs Offered to City Residents

Strategies for promoting alternative methods include encouraging and facilitating bicycling, promoting the Clean Air Express and VISTA/Coastal Express, supporting the MTD, as well as filling in stretches of missing sidewalk.

The following is a list of successful efforts the City provides for, and participates in, to move people toward alternative transportation:

Mass Transit

- Funding to Metropolitan Transit District (MTD) in the amount of \$1,900,000 for various transit services, including the Downtown/Waterfront Shuttle, Commuter Shuttle, and the Crosstown Shuttle;
- Subscription bus service ridership for Fiscal Year 2005 totaled 127,345 on the Clean Air Express and 113,895 for the VISTA/Coastal Express service for weekday, peak hour services; and



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Transportation

- Approximately 1,500 *MyRide* Transit passes distributed to downtown employees; approx. 1,000 passes activated and 10 - 15% being used on a regular basis.

Bicycling

- Programs and events:
 - Over 14,000 bike and transit maps, and brochures distributed by Traffic Solutions in FY 2005;
 - Increase in local bicycle commuters since 2000, despite overall drop countywide;
 - Bike lockers available for downtown employees at nominal rate (\$25 per quarter); approximately 50% in use; and
 - Financial and in-kind sponsor of local Safe Routes to School Program to increase the number of children walking and cycling to school safely.
- Infrastructure:
 - 43 lane miles of bike routes, lanes and paths created and maintained in the City of Santa Barbara;
 - 150 bicycle parking hitching posts installed annually; and
 - Bike station bike parking facility at the new Granada Garage.

There are 43 lane miles of bike routes, lanes and paths throughout the City of Santa Barbara.

Reducing Environmental Impacts of the Automobile

- Electric vehicle recharging stations at City parking lots;
- Traffic signal operations on major corridors coordinated to minimize delay;
- Land use and development strategies that encourage a “park once” approach where goods and services are obtained through a single vehicle trip; and
- Downtown parking structures and shared parking provide opportunities to minimize land used for parking.



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Transportation

Pedestrians

- Pedestrian improvement projects at East Cabrillo Boulevard (\$3,100,000); West Cabrillo Boulevard (\$2,000,000); and West Downtown (\$3,500,000);
- State Street Sidewalk Improvement Project 400 through 1200 blocks of State Street (\$9,500,000);
- Sidewalk Infill Program (\$400,000 annual budget) completes 3,000 lineal feet of sidewalk citywide each year; and
- Permit fees waived for residents who construct sidewalk improvements outside of the land development process.

2. Potential Additional Opportunities

- Increase transit service and convenience using social marketing techniques, increasing bike-on-bus availability, expanding routes and decreasing headways;
- Pursue opportunities for wider use of “smart corridor” technology, which maximizes existing road capacity by adjusting signal timing and highway access depending upon existing traffic volumes;
- Expand funding for installation of sidewalks via the City’s Sidewalk Infill Program;
- Develop recycle-a-bike program;
- Increase supply of City-provided bikes and covered bicycle parking areas for employees;
- Implement free green bike program citywide, providing bicycles for pick-up and drop-off at designated locations throughout the downtown core;
- Continue participating in local and state grant programs funding improvement projects with local oil industry mitigation fees (CREF); and
- Expand alternative work schedule and telecommuting program (Flexwork) to reduce number of employees commuting during peak hours.



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3. Issues, Barriers, and Policy Discussion

With respect to transportation, the Circulation Element of the General Plan identifies several constraints to a fully sustainable future. The two most significant constraints are:

- 1) Increasing limited funding and resources without shifting funds away from necessary programs and street maintenance funds, and
- 2) The perception that the automobile will always be the most convenient mode of transportation.

During the twentieth century, the automobile and the national highway system were developed in combination with zoning and housing policies that encouraged separation of land uses. This combination of values created distances between our homes and our destinations, and increased our reliance on the personal vehicle. If the vision of a green community is desired, a significant paradigm shift will be needed so that people can go about their daily lives using a transport system that minimizes resource consumption and reduces congestion without compromising convenience. This shift may require the City to assess the value of compromises and trade-offs between current systems and alternative strategies, while focusing not on moving vehicles, but on moving *people* and *the things* they need.

We promote sustainable transportation because of the benefits to the environment and quality of life. There are also significant economic benefits to the City, residents, and guests who save money on fuel and vehicle maintenance, plus tax dollars for street maintenance. The current program continues to effectively serve pedestrian, bicycle, transit, and motor vehicle users with innovative alternative transportation projects, while maximizing safety and operations efforts at the local, regional and state level. The additional opportunities identified above should be evaluated for economic and technical feasibility.

4. References and Additional Resources

- City of Santa Barbara Transportation Division home page: www.santabarbaraca.gov/Government/Departments/PW/tra ns_division_main.htm
- Santa Barbara County Association of Governments web site: www.sbcaq.org



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Transportation

- Sustrans: UK's leading sustainable transport charity, working on practical projects so people can choose to travel in ways that benefit their health and the environment. <http://www.sustrans.org>
- Sustainable Portland: Portland's Office of Sustainable Development with a mission to provide leadership and contribute practical solutions to ensure a prosperous community where people and nature thrive, now and in the future. <http://www.sustainableportland.org/>
- The Centre for Sustainable Transportation: founded to provide leadership in achieving sustainable transportation in Canada. <http://www.cstctd.org/english/index.htm>
- Institute for Transportation and Development Policy: founded in 1985 to promote environmentally sustainable and equitable transportation policies and projects worldwide. <http://www.itdp.org/>



The Green Team

ENVIRONMENTAL HEALTH – *Toxics Reduction, Healthy Foods Systems & Clean Air*

1. Where We Are Now

Toxics Reduction & Green Purchasing

Toxic chemicals are much less visible than other forms of pollution such as solid waste, contaminated water, or dirty air, but can be far more insidious. We are only beginning to understand the far reaching effects of chemicals on our groundwater, waterways, air, and natural systems. Most traditional hazardous waste management has focused on proper disposal of waste or cleanup of spills, but not on the tons of these chemicals that are released in the environment intentionally to kill weeds and pests. The City has taken action to not only properly dispose of residue, but to reduce the use of chemicals and find alternatives that do not have downstream effects and unintended consequences.

Household Hazardous Waste:

- City's ABOP has collected and recycled over 40 tons of hazardous material since inception in November 2003; and
- The Household Hazardous Waste Collection Center at UCSB received and processed 661,000 pounds of material in calendar year 2004.

Underground Storage Tanks and Groundwater

- City is currently remediating or monitoring contaminated soil/groundwater at 20 sites in the City;
- The City installed above ground storage facilities for aviation fuel at the Airport to reduce the risk of leaks and contamination; and
- The City remediated contamination on Airport property related to underground aviation fuel storage tanks and former Marine Corps Air Station operations.

Hazardous Materials in City Facilities

- Implemented Integrated Pest Management (IPM) strategy several years ago;
- Parks has reduced pesticide use by 85% as of December 2004;

F. Environmental Health



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Environmental Health



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- Toxic Reduction Program that includes 19 pesticide free parks;
- Use of IPM methods in all City parks and at the golf course, including propane weed flammers, steam weed killer, Sluggo, worm castings, Neem oil, BT for caterpillars, vinegar insect control, vinegar clover control, organic fertilizers, pond-saver bio algae control, slow-release fertilizers, microrhizol fungus use reduces fertilizer needs, compost replaces fertilizer, compost tea on greens;
- The City golf course has reduced chemical use by 89% since 2001;
- On-going remediation of lead based paint and asbestos in some Airport buildings;
- Motor Pool has reduced chemical use 20% since 2001;
- Building Maintenance has reduced chemical use significantly; and
- Sound forestry practices, including reduced decibel and emissions equipment.

Emergency Spill Response

- The city helps with coordinated response to emergency hazardous waste spills – keeping hazardous materials out of waterways and the ocean.

Clean Air – A Regulatory Framework

The City of Santa Barbara does not have a distinct division dedicated to monitoring and improving air quality. Air quality is truly a regional issue that must be addressed at all levels of government. To that end, the Santa Barbara Air Pollution Control District (APCD) is responsible for regulating stationary sources of outdoor air pollution in the County. APCD regulations do not cover indoor air quality. Air pollution sources need an APCD permit before constructing, replacing, changing, or operating any equipment or process that may cause air pollution. Examples of businesses that need APCD permits are oil and gas facilities, gas stations, dry cleaners, auto body shops, refinishing operations, printers, and operators of certain gas or oil powered engines.

The U.S. Environmental Protection Agency and the California Air Resources Board develop and implement air quality

standards. In most cases, California standards are more protective of health than national standards

Since air quality is closely tied to vehicle use, the City's main policy mechanism to improve air quality is the pursuit of policies and programs outlined in the Circulation Element of the General Plan.

2. **Potential Additional Opportunities**

The City has work to do on several fronts: clean up existing contamination, stop creating new potential contamination, and make proactive changes in the way we do business to result in long term reduction of toxics.

- Develop a comprehensive Green Purchasing Policy that promotes the purchasing of less toxic chemicals in the workplace;
- Continue to remediate contaminated soils/groundwater sites around the City;
- Explore the reduced use of Underground Storage Tanks at City Facilities in order to decrease the risk of unknown leaks;
- Expand the City's ABOP Hazardous Waste Recycling Facility to accept the entire range of household hazardous waste and electronics; and
- Significantly increase the City's procurement of renewable energy.

Most of the actions available to the City for air quality improvement relate to the use of fuel in vehicles and buildings. The City can have a potentially large impact upon local and regional air quality through transit programs in addition to:

- Implementing policies and programs identified in the City's Circulation Element regarding the use of alternate modes of transportation;
- Expanding the City's use of alternative-fueled vehicles;
- Reducing energy consumption at City facilities and thereby indirectly reducing the amount of pollutants emitted to the environment; and



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Environmental Health



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- Continuing to buy new clean emission diesel generators, and exploring alternative types of generators for use as emergency standby devices.

3. Issues, Barriers, and Policy Discussion

The need for resources is the main barrier in dealing with toxics. Leaking underground storage tanks are expensive to remove, and it is even more expensive dealing with the resulting contamination. Additionally, expanding the ABOP to a full collection of household hazardous wastes is expensive and would require more employees to work and more resources to handle the disposal and recycling of the collected materials.

The broad scope of programs and activities in the Circulation Element reflects the City's policy commitment to improving air quality through alternative transportation. The City promotes sustainable transportation because of its environmental, quality of life and economic benefits. Residents and guests save on fuel costs, vehicle maintenance costs, and street maintenance costs. The additional opportunities identified above should be evaluated for economic and technical feasibility. Further implementation of strategies in the City's Circulation Element will further the City's efforts to improve overall air quality on the South Coast.

The desire to create a system of safer parks will require a change in maintenance operations as well as funding for capital improvements needed to implement the Integrated Pest Management policies. Additionally, educational opportunities should be sought to assist people in understanding the aesthetic changes that will come as a by-product of these changes.

4. References and Additional Resources

- City of Santa Barbara Environmental Services web page: www.SBrecycles.com
- Integrated Pest Management Strategy, January 2004: http://www.santabarbaraca.gov/Resident/Community/Parks_and_Beaches/Integrated_Pest_Management.html

Printed on 30% post-consumer recycled paper, naturally.

Environmental Health

- City of Santa Barbara Solid Waste Strategic Plan, July 22, 2005 http://www.santabarbaraca.gov/SolidWaste/pdf/SolidWaste_Strategic_Plan.pdf
- Santa Barbara County Air Pollution Control District home page: <http://www.sbcapcd.org/>
- City of Santa Barbara, *General Plan Update 2030: Conditions, Trends and Issues report*, August 2005. Available online at www.santabarbaraca.gov/Resident/Community/Planning/GPU.htm
- City of Santa Barbara Transportation home page: www.santabarbaraca.gov/Government/Departments/PW/trans_division_main.htm
- Santa Barbara County Association of Governments web site: www.sbcag.org



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G. Water Resources

WATER – Water Access, Efficiency, Conservation, Waste Water Reduction, Storm Water and Urban Runoff Pollution Reduction

Water is an essential human need and a resource shared with wildlife and ecological systems. Although water allows our communities to exist, the acquisition of water supplies has economic and environmental costs. The efficient use of water is a stewardship issue and in many cases a contractual mandate. The stewardship continues with the proper treatment and disposal of waste water and the management of runoff to creeks and oceans to prevent pollution.

1. Where We Are Now

Water Access & Efficiency and Source Water Conservation

Conservation in the Community:

- 22,000 Ultra Low Flush toilet rebates were issued during 1980's & 1990's;
- "Landscape Design Standards for Water Conservation" were adopted in 1989;
- 43,100 high-efficiency showerheads have been distributed to date, free of charge to residents;
- Between 350 and 650 free water checkups are conducted each year – and over 7,088 since 1990;
- A commercial / industrial rebate program is underway;
- 282 high-efficiency pre-rinse spray nozzles have been installed in local restaurants;
- A lodging industry conservation campaign is underway;
- "Smart" irrigation is being promoted, using real-time weather data by radio signal for irrigation scheduling generating savings up to 25%;
- The City is a leader in developing regional conservation programs to leverage grants and program funds, and coordinate conservation information between agencies; and
- Demonstration gardens have been established for recycled water and low water use plants.



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Water Resources

Conservation in City Facilities:

- All City toilets have been converted to ultra low flush models where cost-effective (95%);
- 10 waterless urinals have been installed;
- All City showerheads have been converted to low flow models;
- All public-use lavatory faucets have been converted to self closing valves;
- Water-wise landscaping is in place at most City facilities;
- All City parks and the golf course use weather-based irrigation scheduling; and
- 75% of City parks are currently irrigated with recycled water.

Other Water Conservation Elements:

- The City has two full time employees for water conservation efforts;
- The City is a long-time member of California Urban Water Conservation Council – and is active in information and program development;
- City maintains comprehensive metering requirements for new developments to promote conservation;
- City utilizes an “inverted block rate” billing system – with progressively increasing unit costs to provide conservation incentives;
- The City’s water usage is down 14% in absolute terms since 1988, despite a 10% increase in population; and
- The City’s potable water use is down 25% on a per capita basis since 1988.

Waste Water Pollutant Reduction

Wastewater:

- The City treats 8.5 million gallons of waste water per day using biological processes;
- The City has a 99% compliance record with all discharge standards;
- The City has reduced chlorine use by 33% by optimizing the disinfection process;



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Water Resources

- Purchases of conventional energy have been reduced by 50% at El Estero;
- A monitoring and video inspection program ins in place for sewer pipes near Creeks; and
- El Estero is the site of the first commercially operated fuel cell in California, eliminating approximately 35,000 pounds of oxides of nitrogen (Nox) and 500 tons of carbon dioxide (CO₂) annually.

Water Quality and Supply:

- The City recently installed buried tanks at Sheffield reservoir, eliminating chlorine usage and decreasing the potential for the formation of harmful disinfection byproducts; and
- The City recently completed \$14 million in upgrades at the Cater Treatment Plant to ensure full compliance with drinking water standards.

Storm Water and Urban Runoff Pollution Reduction

Pollution Reduction and Cleanup:

- Street sweeping cleans 228 curb miles weekly;
- Weekly creek clean-ups remove 35 tons of debris each year;
- Installed and maintain 100 storm drain inlet filters, 40 catch basin debris screens, and 1 CDS unit;
- Constructing two “dry weather diversion” facilities to divert dry weather urban runoff to the sanitary sewer;
- Designing a ultraviolet treatment facility to treat dry weather flows in the Westside Storm Drain;
- Designing natural treatment systems to manage and treat storm water runoff at the Santa Barbara Golf Club and West Figueroa Street;
- Stenciled 2,200 catch basins: “Don’t Dump: Drains to the Ocean”; and
- Respond to over 300 urban run-off illicit discharges annually.



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Programs, Monitoring and Research:

- Monitoring creek water quality: storm sampling, water quality project assessment, intensive bacteria monitoring, and ongoing baseline data collection;
- Working on a collaborative DNA-based Microbial Source Tracking Research Project, with Dr. Holden, UCSB Bren School, to determine the presence, potential origins, and fate of human waste in Mission Creek and Arroyo Burro Creek watersheds;
- Conducting extensive studies using benthic macro invertebrate populations and diversity as an indicator of creek health;
- Conducting extensive studies of benthic macro invertebrates and tidewater gobies and water quality in Arroyo Burro and Mission Creek Lagoons;
- Developing Storm Water Management Program to comply with Phase II National Pollutant Discharge Elimination Regulations;
- Implementing Storm Water Pollution Prevention Programs at Airport and Waterfront;
- Operating Clean Water Business Certification Program: targets increased compliance by automotive, construction, restaurant and other service industries;
- Developing a Watershed Resident and Business Technical Assistance Program to increase participation in clean water programs and reduce pollutants at the source; and
- Conducting Green Gardener Certification Program: 780 gardeners certified to date; program received awards from USBR and California IPM Program.
- *At the Waterfront:*
 - Implementing Storm Water Pollution Prevention Program
 - Harbor water quality monitoring includes monthly water quality and dissolved oxygen tests
 - Harbor Marine Works water clarifier
 - Absorbent Pad Distribution Program
 - Marine Sanitation Device (MSD) inspections and enforcement
 - “Salad Boat” clean-up after winter storms and debris scoop nets



Water Resources

- Local Green Building Award 2001 for floating restroom on marina
- Fishing line recycling containers
- EPA Tier II compliant engines for Patrol Boat 2
- New 50-site mooring area east of Stearns Wharf to reduce beach debris during the winter storms
- Plastic wrap on 2000+ piles at Stearns Wharf to prevent creosote leaching into the ocean
- *At the Airport:*
 - Implementing Storm Water Pollution Prevention Plan including inspection and storm water quality sampling effort
 - Infrastructure replacement: storm water and wastewater system
 - Storm water devices installed: inlet filters, oil/water separators, and wash racks with drainage to sanitary sewer
 - Development of draft Airport MS4 storm water management plan

2. Potential Additional Opportunities

- Continue installation of waterless urinals in City facilities where appropriate;
- Investigate landscape water budget program based on satellite imagery analysis;
- Expand use of recycled water for irrigation and toilet flushing where feasible;
- Continue conversion of landscaping at City facilities to water wise landscaping and “smart” irrigation controllers;
- Investigate “dual flush” toilet technology;
- Pursue opportunities for wider public use of “smart irrigation” technology;
- Participate in regional grant programs including cooling tower conductivity controller retrofit and Water/Saver Plus water efficient x-ray processor rebate program;
- Researched Sewer Lateral Inspection Ordinance;
- Expanded educational efforts;



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- Better public outreach about what's already being done;
- Better public outreach to change behaviors about what's put down the toilet;
- Continued participation in cutting edge water quality research, both by contracting directly with researchers, and by continuing to participate with agencies such as the Water Environment Research Foundation, and the American Water Works Research Foundation;
- Review and revise City ordinances that prohibit discharges into the storm drain to clarify enforcement capabilities and increase compliance through monetary fines;
- Increase knowledge of and compliance with storm water regulations through the increased use of City enforcement and outreach staff;
- Broaden City organization participation and commitment to achieving clean water objectives by setting an example for private industry and Santa Barbara residents;
- Identify areas throughout the City to implement innovative storm water management projects to address watershed water quality issues;
- Work with private landowners to maximize the use of vegetated open space for water quality improvements;
- Expand research efforts to better understand water quality problems and to develop more effective methods of tracking the type and sources of pollutants;
- Continue to establish demonstration projects to facilitate the implementation of public and private projects to address water quality; and
- Develop a long-range strategic plan for water quality capital improvements, including storm drain and other infrastructure improvements.



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Water Resources



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3. Issues, Barriers, and Policy Discussion

The broad range of water conservation activities reflects the City's policy commitment to conservation as well as its role as the water utility. We promote conservation because of its environmental benefits as well as the economic benefits of avoiding the high marginal cost of acquiring new water supplies. The current program effectively serves City water customers with state-of-the-art conservation measures, while coordinating with conservation efforts of other regional water purveyors and statewide organizations. Declining per capita usage suggests that water conservation programs are effectively promoting increased efficiency. The additional opportunities identified above should be evaluated for economic and technical feasibility to achieve further conservation.

On the water supply side, water from the Santa Ynez River is our primary source of water. At the same time, the river is habitat for endangered steelhead trout that also depend on the river for survival. The City and its partners in the joint powers agencies managing the Cachuma Project face the challenge of taking part in feasible and cost effective measures to improve conditions for steelhead, while maintaining the water supply that is vital to South Coast communities. This effort is embodied in the Lower Santa Ynez River Fish Management Plan, which was adopted in 2000 and guides research, data collection, and project implementation to enhance steelhead habitat, improve fish passage, and provide flow augmentations for steelhead. The City and its joint powers partners could also participate in Steelhead/rainbow trout enhancement projects and programs in the upper basin above Bradbury Dam; however, there remain a number of issues associated with fish passage around the dam, recreation impacts, compatibility with existing non-native species, and participation by necessary parties, water supply impacts, and funding.

In addition, the City faces the following issues as it relates to water, waste water and reducing pollution:

- Expand Recycled Water Use: Barriers include regulatory requirements for use of recycled water and the cost of installing the distribution system and on-site plumbing for additional sites. The largest remaining areas in town without recycled water are Alameda Park and the Airport;

Water Resources

- Increase Wastewater Treatment Level: Barriers include absence of evidence of environmental benefit from additional treatment, increased chemical and energy use, and increased costs to ratepayers;
- Although the technology exists to safely allow direct reuse of recycled water as a drinking water supply, the public is put off by the notion. Despite the fact that people living along creeks and rivers have been recycling the upstream communities' wastewater for decades, the idea of sending treated water directly into people's pipes meets significant resistance;
- Cost to develop, construct and maintain water quality capital improvement projects as well as best management practices necessitate a long range strategy and significant funding;
- Water quality problems are not yet quantified, solutions are often site specific and difficult to implement in an urbanized environment; and
- Water quality policy and enforcement tools need to be developed to ensure compliance.

4. References and Additional Resources

- City of Santa Barbara Water Conservation home page: www.santabarbaraca.gov/Government/Departments/PW/WCHome.htm
- Santa Barbara regional "Be Water Wise" web site: www.sbwater.org/
- CityTV - "Garden Wise Guys" sustainable landscaping show: <http://citytv18.com/htm/GardenWiseGuys.html>
- California Urban Water Conservation Council home page: www.cuwcc.org/
- City of Santa Barbara's Wastewater Treatment Page: <http://www.santabarbaraca.gov/Government/Departments/PW/WastewaterTreatment.htm>
- California Water Environment Association: <http://www.cwea.org>
- Water Environment Federation: <http://www.wef.org>
- Water Environment Research Federation: <http://www.werf.org>



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Water Resources

- US Environmental Protection Agency: <http://www.epa.gov>
- United States Environmental Protection Agency, www.epa.gov
- California State Water Resources Control Board, <http://www.swrcb.ca.gov/>
- Central Coast Regional Water Quality Control Board, <http://www.waterboards.ca.gov/centralcoast/>
- Center for Watershed Protection; www.cwp.org



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PUBLIC EDUCATION

The City of Santa Barbara is actively educating the community regarding what the City is doing and what the community can do to be more environmentally sound in their actions. This section details the efforts that the City has made in public information and resource conservation.

1. Where We Are Now

Education is the key to behavioral change, and the City has used all forms of media, personal presentations, one on one phone calls, and visits to teach people how to recycling, reduce waste, use water wisely, and practice sustainable gardening techniques. The media outreach communicates the consistent message that these topics are important, that the City cares about them, and that there are people willing to help. Residents that were previously looking for guidance have not only received it, but in turn have become educators for friends and neighbors. Spanish outreach is especially important to reach immigrants and people who may have less exposure to environmental messages.

Transportation

- Over 300 “Slow Down Santa Barbara Signs” have been distributed to date (slower speeds, = increased fuel efficiency = less noise).

Sustainable Landscaping and Agriculture

- Green Gardener Certification Program: 900+ gardeners certified regionally to date; program recognized with State and Federal awards;
- Annual events promote sustainability including the Sustainable Landscape Fair, the Organic Festival, and Earth Day;
- Low-water use demonstration garden at Alice Keck Park Memorial Garden provides and excellent example of sustainable landscaping;
- Schools outreach including Arbor Day, A Day in Life of a Park Ranger and Nature Camp;
- The City conducts outreach to the residential sector via Neighborhood work days, City TV, English Spanish, IPM, Interpretive signs regarding nature; and

H. Public Education



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Public Education

- “Garden Wise Guys” TV series provides sustainable landscaping ideas on City TV.

Water Conservation

- 100+ classroom presentations are given annually;
- Comprehensive public information program is operated including regional media campaign and extensive brochures, handouts, videos and literature;
- Water efficiency literature & videos have been created;
- Water conservation messages appear on customers’ bills;
- City and Regional Web Sites provide conservation information; and
- The City promotes the use of gray water in development projects.

Green Building Initiatives

- The Green Building Parade showcases local examples of successful green buildings.

Recycling and Waste Management

Direct Mail

- *Reduce, Reuse, Recycle News* is sent to all residential and commercial addresses in the City on America Recycles Day (November 15th) and Earth Day (April 20th);
- The Commercial Waste Update was sent to business and multi-unit customers only. This may or may not become a regular publication.
- The Reuse Business Mailer was sent to Reuse Businesses encouraging them to identify and promote themselves as environmentally friendly with the included placard.

General Information on Recycling

- Brochures have been provided for information on all aspects of recycling and greenwaste diversion, and are downloadable from the Solid Waste website at www.SBrecycles.org;
- The Reuse Directory was created to help people find homes for things they no longer need, and find businesses that sell reused goods. It is available at Art from Scrap and is on the website;



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Public Education

- Posters on what to recycle are available for businesses and multi-unit complexes to post in common areas; and
- The City's "SBrecycles.org" website as well as the County website www.lessismore.org provides information on all aspects of waste reduction.

Presentations and Special Events

Presentations on recycling and composting have been given at schools, multi-unit complexes, businesses and garden clubs;

- The City's Earth Day education booth provided residents with information on recycling, greenwaste, construction and demolition recycling, composting and reuse;
- The City held a Recycling Roundtable to receive community input on recycling and other City diversion programs;
- A public screening of documentary "Blue Vinyl" provided an in depth look at the effects of plastics manufacturing; and
- Door hangers were placed on residences announcing opening of the ABOP.

Media Campaigns for Recycling

- Television promotion: Univision (Spanish ads); City TV (Reuse It! (25-min. documentary); Nuestra Ciudad (30-min. interview); Inside Santa Barbara: (5-min. spots); Cable TV (Used Oil public service announcements); and
- Recycling ads run periodically in News-Press, Independent, La Mexicana.

Spanish-Language Outreach for Recycling

- Developing comprehensive approach on how to best reach the Spanish-speaking community;
- Reduce, Reuse, Recycling Newsletter is bilingual;
- All brochures produced in Spanish; and
- A Spanish-speaking option is available on the City's Recycling Hotline



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Creeks Restoration and Water Quality

Annual Media Campaigns

- TV Public Service Announcements (PSA's) run monthly in English and Spanish;
- Radio PSAs run monthly in English and Spanish; and
- Print advertisements run in daily, weekly and quarterly newspapers, Parks and Recreation Activity Guides and other community publications.

Community Events

- Creek Clean-ups;
- Participate in Earth Day and other community-sponsored events;
- Annual Creek Week;
- Creek Stewards Neighborhood Restoration Projects – Sycamore Creek and Mission Creek;
- Planting Days at creek restoration sites;
- Creek Restoration Tours;
- Creek Festivals – two times per year; and
- Public Input meetings – Watershed Forums, Annual Water Quality Forum, neighborhood meetings, etc.

Youth Programs

- In school: presentations, curriculum, teacher resources, field trips to restoration sites and the Watershed Resource Center;
- After school: presentations, activities, Youth Enrichment Adventure Program;
- Summer Camps: presentations, activities;
- Community gardens: plots available for native planting; and
- Youth Apprentice Program – Clean-up of Old Mission Creek.

Clean Water Business Certificate Program

- Automotive Service;
- Restaurant; and
- Construction.

Public Information on Water Resources

- Annual reports;
- Program technical and information reports;
- Website;
- Maps, Posters;
- Brochures;
- Press releases;
- Creek Signs; and
- Creeks Advisory Committee.

2. Potential Additional Opportunities

The City has put a lot of effort into outreach, but on many separate fronts. It is necessary to present this information in a form that is logical to customers, rather than based on how City departments are organized. Education that is organized around a Sustainable City will expose those interested in recycling or water conservation to other aspects of sustainability as well. Lesser known topics such as green building must also be expanded. Spanish versions of this information is not only desirable, but necessary in our multicultural city.

General

- Increase media campaigns in both Spanish and English;
- Create a Sustainable City Website; and
- Create a Public Library-based “Green Resource” center for both public and staff education.

Green Building Initiatives

- Publish an article regarding the Green Parade in the City Newsletter;
- Create informational materials, including brochures and newsletters; and
- Make information regarding green building initiatives easily accessible to builders and contractors.



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Public Education

Recycling

- Create a Spanish version of SBrecycles.org;
- Create new brochures on recycling and disposal of appliances, hazardous wastes and electronics;
- Develop a new-customer packet that includes information on proper disposal various items, annual pickups, cleanups, and waste events; and
- Utilize movie theater advertising to promote recycling.

3. Issues, Barriers, and Policy Discussion

The City must analyze which educational programs and projects have been most effective in order to focus education efforts and dollars for the most productive outcome. The amount of money devoted to education and conservation efforts will most certainly impact the choices made.

4. References and Additional Resources:

- Telephone hotlines that provide information to residents:
 - Abandoned Vehicles (Public property) 897-2413
 - ABOP (Antifreeze, Batteries, Oil, & Paint) Information Hotline 560-7505
 - Airport Noise Complaint Hotline 967-1900
 - Animal Control 9-1-1 or 963-1513
 - Code Enforcement Hotline 897-2676
 - Creeks – Dumping/Water Quality 897-2658
 - Fire Department (24 hr.) 965-5254
 - Graffiti Hotline 897-2513
 - Hazardous Waste 564-5371
 - Information – City Hall 963-0611
 - Leaf Blower Complaints (PD Dispatch) 897-2410
 - Mosquito Abatement 564-5371
 - Noise Abatement (PD Dispatch) 897-2410
 - Park Ranger 897-1941
 - Police Department:



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Public Education

- 24 hr Non-Emergency 897-2300
 - 24 hr Dispatch 897-2410
 - Tip Line (Anonymous) 569-COPS (2677)
 - Pothole & Sidewalk Hotline 897-2630
 - RADON Information (800) 745-7236
 - Sand Bags 564-5411
 - Sewer Problems (Water/Streets) 564-5413
 - Shopping Cart Hotline 1-800-252-4613
 - Street Lights (24 hr recording) 564-5416
 - Street Sweeping 897-2541
 - Traffic Signals (Public Works) 564-5583
 - Trash/Solid Waste Complaints 897-2618
 - Message Hotline 564-5587
 - Tree Problems 564-5434
 - Vector Control (Rodents, et al) 564-5371
 - Water Problems:
 - Broken mains, wasting water 564-5413
 - Conservation (audit requests) 564-5460
 - Zoning Enforcement 897-2676
- Public Works Department, Water Resources Division, WATER CONSERVATION PROGRAM SUMMARY, January 2005.
 - For more information on the Green Parade and the Sustainability Project, go to the Sustainability Project website:
<http://www.sustainabilityproject.org/DesktopDefault.aspx?pageid=11>
 - For more information on recycling, go to
<http://www.santabarbaraca.gov/SolidWaste/>



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Appendix A - Glossary

GLOSSARY

active recreation: recreational opportunities including sports and other activities that typically require playing fields, facilities or equipment.

affordable housing: any housing that is deed restricted for, and occupied by, households earning less than 120% of the Santa Barbara County median family income.

alternative fuel vehicles: vehicles that operate on fuels other than gasoline or diesel. Alternative fuel vehicles include those that operate using compressed natural gas (CNG), liquid natural gas (LNG), propane, electricity, hybrid of gasoline and electricity, and hydrogen.

alternative (and/or sustainable) modes of transportation: for the purpose of this document *alternative* (and/or sustainable) modes of transportation include transportation by public transit (bus or rail), bicycle, walking, or alternative fuel vehicles.

average vehicle ridership (AVR): a measurement of vehicle occupancy indicating the average number of persons traveling in a measured number of vehicles. AVR is an indicator of the effectiveness of and participation in ridesharing programs

bike lane/path/route: as defined in the City's Bicycle Master Plan, a *bike lane* is a signed and striped lane along a roadway for use by bicycles. Other types of bicycle ways in the city are *bike paths* and *bike routes*. A bike path is a dedicated bicycle way that completely separates bicycles from motor vehicles. Bike routes are signed routes which bicyclists share with motor vehicles. Bike routes differ from bike lanes in that routes do not include any striping on the roadway - they are only designated by signage.

community: for the purpose of this document, whenever the term *community* is used it is meant to include the following groups: individuals of all ages, races and abilities; organizations; government agencies; businesses; employers; employees; residents; property owners; renters; visitors; schools; students; public and private service agencies; faith communities; and local media.

companion animals: animals kept by residents in their homes, yards, or other properties, for purposes of providing mutual companionship.



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Appendix A - Glossary

clean distributed generation: distributed generation refers to generation of electricity at or near the location where that electricity will be used. This differs from traditional electricity generation, which occurs at centralized power plants and is distributed over hundreds of miles to millions of customers through the electricity “grid”. For the purpose of this document, *clean* distributed generation (in order of preferred technology type) refers to 1) renewable distributed generation, including electricity generated by solar photovoltaic systems, fuel cells (powered by hydrogen generated from solar, wind, or other non-fossil fuel, renewable energy technologies), and small wind generators; 2) electricity generated by high efficiency (i.e., meeting or exceeding efficiency of large natural gas power plants) natural gas generators and fuel cells using hydrogen generated through a natural gas catalyst; and 3) medium scale, high-efficiency co-generation systems (powered by natural gas) serving many properties located within close proximity of each other. Clean distributed generation does not include electricity generated by gasoline or diesel powered generators.

diversion: in reference to solid waste, *diversion* refers to all waste that is kept out of a landfill through recycling, beneficial reuse, composting, or other means.

ecological footprint: The ecological footprint is a tool to help measure human impacts on local and global ecosystems. The ecological footprint of a given population (household, community, country) is the total area of ecologically productive land and water used exclusively to produce all the resources (including food, fuel, and fiber) consumed and to assimilate all the wastes generated by that population. Since we use resources from all over the world and affect far away places with our wastes, the footprint is a sum of these ecological areas — wherever that land and water may be on the planet. Thus the ecological footprint of Santa Barbara is that area of productive land inside and outside its borders that is appropriated for its resource consumption or waste assimilation.

environmentally preferable: a product, service, activity or process that has a lesser or reduced effect on human health and the environment when compared to other products, services, activities or processes that serve the same purpose.

extended producer responsibility: responsibility of producers or manufacturers across the entire life cycle of their products, particularly to the post-consumer stage (after products are discarded and become waste). Typically once a product is sold to a consumer the responsibility of disposing of that product becomes the



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responsibility of the consumer. Extended producer responsibility requires that the producer of the product maintain responsibility for recycling or proper disposal of the product once it has surpassed its useful life.

green: for the purpose of this document, *green* is used as shorthand to refer to any environmentally preferable product, activity, service or process.

green housing: housing that meets or exceeds the requirements of the City's Green Building Design and Construction Guidelines.

greenhouse gas (GHG): greenhouse gases are natural and manmade gases in the earth's atmosphere that allow incoming solar radiation to pass through the atmosphere and warm the earth but trap radiant heat given off by the earth. The radiant heat absorbed by these gases heats the atmosphere. This is a natural process known as the "greenhouse effect" that keeps the earth habitable. The four primary greenhouse gases are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O) and chlorofluorocarbons (CFCs). Since the onset of the industrial period, human activities have lead to sharp increases in the levels of GHGs in the atmosphere, enhancing the greenhouse effect and contributing to rising global temperatures.

hazardous material: a material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment.

hazardous waste: a waste or combination of wastes which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may cause or significantly contribute to an increase in serious, irreversible, or incapacitating reversible illness or pose a substantial present or potential hazard to human health, safety, welfare or to the environment when improperly treated, stored, transported, used or disposed of, or otherwise managed.

household hazardous waste (HHW): hazardous waste that is generated by residents through the use of hazardous or potentially hazardous products in the home. Typical household hazardous wastes include spent batteries, cleaning products, pesticides, paints and solvents.

HHW collection facility: a permanent facility for the collection and proper recycling or disposal of hazardous waste generated by

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residents and small quantities of hazardous waste generated by area businesses. This is provided as a free service to Santa Barbara and unincorporated residents.

Income levels: With respect to the indicators of housing affordability the following are definitions of the income levels mentioned in this document:

Very low income: annual earnings between 0 and 50% of the Santa Barbara County Median Family income (MFI)

Low income: annual earnings between 51 and 80% MFI

Moderate income: annual earnings between 81 and 120% MFI

Upper income: annual earnings above 120% MFI

LEED™ certification (Leadership in Energy & Environmental Design): A rating system developed by the United States Green Building Council (USGBC) that sets definitive standards for what constitutes a *green* or *environmentally preferable* building. The certification system is self-assessing and is designed for rating new and existing commercial, institutional, and high-rise residential buildings. It evaluates environmental performance of the entire building over the building's life cycle. LEED certifications are awarded at various levels (certified, silver, gold, and platinum) according to a point-based scoring system.

level of service (LOS): a concept used to describe street intersection operating conditions. It is based on average vehicle delay measurements and/or the volume/capacity ratio of the intersection in question. LOS grades range from A to F with A representing excellent (free-flow) conditions and F representing extreme traffic congestion. For the purpose of this document, LOS grade D represents marginally acceptable levels of traffic and grades E and F represent unacceptable levels.

livable housing: housing that is within close proximity to neighborhood serving commercial areas, transit stops and community resources such as parks and open space.

local: the term *local* has different definitions depending upon the context in which it is used in this document. These are described below:



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- 1) Where *local* is used in reference to the economy (“local economy” or “local businesses”) it refers to Santa Barbara’s economy or businesses located within Santa Barbara.
- 2) *Local government agencies* refer to any agencies or departments that are located and operate within the South Coast area of Santa Barbara County.
- 3) Where *local* refers to food production (“locally produced”) it refers to food grown in the southern half of the state of California
- 4) Where *local* refers to resources, it refers to resources obtained or impacted within a 500-mile radius of Santa Barbara.

mixed-use projects: developments which incorporate both residential and commercial uses.

modal split: the split in use of various transportation modes including: single passenger vehicles; carpools of more than one passenger; bus; rail; bicycle; and pedestrian modes.

multi-modal transportation system: a transportation system that includes affordable, alternative modes of transportation such as public transit, and infrastructure and access for alternative fueled vehicles, bicycles and pedestrians, in addition to standard vehicular transportation.

native species: plant or animal species native to the southern California bioregion.

natural function/wildlife habitat: geographic areas that provide life-supportive functions associated with atmospheric, biological, biochemical and hydrological processes that keep our air and water clean, process waste and support survival and reproduction of plant and animal life.

non-renewable resources: natural resources that have a finite availability worldwide. Examples include coal, oil and other petroleum products.

open space: for the purpose of this document *open space* refers to all land uses defined as open space in the City of Santa Barbara’s General Plan. These include beaches, parks, public gathering places,



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usable green open space in street medians, scenic highway corridors, gardens, and other publicly accessible land.

passive recreation: recreational opportunities that occur in a natural setting which require minimal development or facilities, and the importance of the environment or setting for the activities is greater than in developed or active recreation settings.

PBTs (persistent bioaccumulative toxics): chemicals that are toxic, persist in the environment and bioaccumulate in food chains and, thus, pose risks to human health and the environment. The term PBT is used primarily by the US Environmental Protection Agency (EPA), as part of its preparation of a list of such chemicals that will receive special regulatory emphasis in the United States.

POPs (persistent organic pollutants): organic chemical substances that persist in the environment and bioaccumulate in food chains and pose a risk of causing adverse effects to human health and the environment. The term POPs is commonly used in the context of the United Nations Environment Program (UNEP) and are subject to international negotiations aiming toward their global elimination.

Note: The primary difference between the PBTs and POPs is that the list of PBTs includes non-organic toxins that are not included on the list of POPs.

potable: suitable for drinking

qualified low emission / alternative fuel vehicles: vehicles recognized by the State of California as being low emission and/or alternative fuel vehicles. These vehicles exceed the basic standards all new vehicles must meet to be sold in California and include low emission vehicles (LEVs), ultra low emission vehicles (ULEVs), super ultra low emission vehicles (SULEVs) and zero emission vehicles (ZEVs).

rainy day: for the purpose of this document, a *rainy* day is any day with recorded precipitation greater than .1" in 24 hours.

recognized neighborhood organization: tax-exempt, non-profit organization representing a commonly recognized neighborhood in Santa Barbara.

regionally appropriate vegetation: plant and tree species that are environmentally appropriate for the Southern California region and



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that do not negatively impact native plants or animals. A specific list of regionally appropriate vegetation for Santa Barbara will be developed in 2003.

rehabilitated housing: rehabilitation that increases by 25% or more the after-rehab value of the property; or a rehabilitation in which at least fifty percent of exterior walls have been removed or relocated for any duration of time.

renewable limits: harvesting resources within *renewable limits* refers to harvesting a renewable resource at a rate that is lower than the rate the resource can replace itself (e.g. catching fish at a rate that will allow the fish population to be maintained over time. If too many fish are caught, exceeding renewable limits, the fish population will decline). The terms *renewable limits* and *sustainable limits* are synonymous.

renewable resources: natural resources that have an unlimited supply (such as solar radiation) or that can be renewed indefinitely if ecosystem health is maintained (e.g. fisheries or forests).

routine: for the purpose of this document, *routine*, when describing generation of hazardous waste by City government operations, refers to regular and consistent operational practices such as vehicle maintenance, regular cleaning procedures, etc. Non-routine refers to hazardous waste generated during unanticipated events such as chemical spills or leaks.

significant emissions source: sources of toxic air contaminants and other air emissions that pose a threat to human health and the environment. A specific list of significant emission sources within Santa Barbara will be developed in the course of tracking this indicator.

special needs groups: with respect to affordable housing, *special needs groups* refer to the elderly, disabled persons, large families, female-headed families, and the homeless.



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sustainable: can mean slightly different things depending on the context in which it is used. For the purpose of this document, the following definitions are used:

sustainable (in reference to resource use): a method of harvesting or using a resource so that resource is not depleted or permanently damaged.

sustainable business: for the purpose of this document, *sustainable business* refers to a business that provides goods and services, and/or has incorporated into its daily operations practices that result in cleaner air and water, less waste and pollution, conservation of energy and natural resources, less traffic, improved quality of life for residents and workers, and contribute to a strong and viable local economy.

sustainable community/city: a community or city that meets its present needs without sacrificing the ability of future generations to meet their own needs. More specifically, a sustainable community is one that improves and enhances its natural, social and economic resources in ways that allow current and future members of the community to lead healthy, productive and satisfying lives.

sustainable landscapes: an approach to ornamental landscaping that emphasizes plantings that closely approach a “natural system” and do not rely on unnecessary input of natural resources (fuel, water, chemical fertilizers, toxic substances) or excessive output of greenwaste, toxic run-off, and groundwater pollutants. Sustainable landscapes also embrace the ethos of using locally-derived and/or recycled materials for constructed elements.

sustainable modes of transportation/travel: same as *alternative modes of transportation* above

sustainable procurement: procurement of environmentally preferable goods and services in a way that also takes into consideration social responsibility and sustainable economic development issues in the manufacture, transportation, sale and use of those goods and services.

toxic material: a substance that causes illness, injury or death by chemical means. A poison.

toxic air contaminants (TACs): air pollutants which may cause or contribute to an increase in mortality or serious illness, or which may pose a present or potential hazard to human health.



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transit node: a station for public transportation along a regional transit corridor (usually rail or rapid bus) with access routes for buses, taxis, automobiles, bicycles and pedestrians.

urban villages: mixed-use developments in walkable, livable and transit-oriented districts that balance the need for sufficient density to support convenient, high-frequency transit service within the scale of the adjacent community.

vehicle miles traveled (VMT): one vehicle traveling one mile constitutes a vehicle mile. VMT is primarily an indicator of automobile use. Increasing VMT typically corresponds with increases in traffic and vehicle-related pollution.

zero emissions vehicle (ZEV): motor vehicle that produces neither tailpipe nor evaporative pollutant emissions.

zero waste: recycling or reuse of all natural and man made materials back into nature or the marketplace rather than sending those materials landfills or similar disposal options



The Green Team

Appendix B - Green Team Members

Green Team Members

- Barbara Barker, Human Resources
- Rebecca Bjork, Public Works – Water/Waste Water
- Brian Bosse, Community Development/Redevelopment Agency
- Mike Cano, Finance Department – Purchasing
- Judd Conley, Waterfront - Facilities Maintenance
- Santos Escobar, Parks & Recreation – Parks
- Bill Ferguson, Public Works - Water Supply Management
- Billy Goodnick, Parks & Recreation – Project Management
- Chris Hansen, Community Development - Building and Safety
- John Ledbetter, Community Development - Planning
- Stephen MacIntosh, Public Works - Environmental Services
- Jeff McKee, Airport – Environmental/Operations
- Myra Nicholas, Library – Services/Facilities
- Sean Thomas, Public Works - Facilities Maintenance
- Janaki Wilkinson, Fire
- Jill Zachary, Parks & Recreation - Creeks Division
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- Bob Zimmer, Waterfront

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Appendix C



Urban Environmental Accords

*Signed on the occasion of United Nations Environment Programme World Environment Day
June 5th, 2005 in San Francisco, California*

GREEN CITIES DECLARATION

RECOGNIZING for the first time in history, the majority of the planet's population now lives in cities and that continued urbanization will result in one million people moving to cities each week, thus creating a new set of environmental challenges and opportunities; and

BELIEVING that as Mayors of cities around the globe, we have a unique opportunity to provide leadership to develop truly sustainable urban centers based on culturally and economically appropriate local actions; and

RECALLING that in 1945 the leaders of 50 nations gathered in San Francisco to develop and sign the Charter of the United Nations; and

ACKNOWLEDGING the importance of the obligations and spirit of the 1972 Stockholm Conference on the Human Environment, the 1992 Rio Earth Summit (UNCED), the 1996 Istanbul Conference on Human Settlements, the 2000 Millennium Development Goals, and the 2002 Johannesburg World Summit on Sustainable Development, we see the Urban Environmental Accords described below as a synergistic extension of the efforts to advance sustainability, foster vibrant economies, promote social equity, and protect the planet's natural systems.

THEREFORE, BE IT RESOLVED, today on World Environment Day 2005 in San Francisco, we the signatory Mayors have come together to write a new chapter in the history of global cooperation. We commit to promote this collaborative platform and to build an ecologically sustainable, economically dynamic, and socially equitable future for our urban citizens; and

BE IT FURTHER RESOLVED that we call to action our fellow Mayors around the world to sign the Urban Environmental Accords and collaborate with us to implement the Accords; and

BE IT FURTHER RESOLVED that by signing these Urban Environmental Accords, we commit to encourage our City governments to adopt these Accords and commit our best efforts to achieve the Actions stated within. By implementing the Urban Environmental Accords, we aim to realize the right to a clean, healthy, and safe environment for all members of our society.

IMPLEMENTATION & RECOGNITION

THE 21 ACTIONS that comprise the Urban Environmental Accords are organized by urban themes. They are proven first steps toward environmental sustainability. However, to achieve long-term sustainability, cities will have to progressively improve performance in all thematic areas.

Implementing the Urban Environmental Accords will require an open, transparent, and participatory dialogue between government, community groups, businesses, academic institutions, and other key partners. Accords implementation will benefit where decisions are made on the basis of a careful assessment of available alternatives using the best available science.

The call to action set forth in the Accords will most often result in cost savings as a result of diminished resource consumption and improvements in the health and general well-being of city residents. Implementation of the Accords can leverage each city's purchasing power to promote and even require responsible environmental, labor and human rights practices from vendors.

Between now and the World Environment Day 2012, cities shall work to implement as many of the 21 Actions as possible. The ability of cities to enact local environmental laws and policies differs greatly. However, the success of the Accords will ultimately be judged on the basis of actions taken. Therefore, the Accords can be implemented through programs and activities even where cities lack the requisite legislative authority to adopt laws.

The goal is for cities to pick three actions to adopt each year. In order to recognize the progress of cities to implement the Accords, a *City Green Star Program* shall be created.

At the end of the seven years a city that has implemented:

19 – 21 Actions shall be recognized as a ★★★★★ City

15 – 18 Actions shall be recognized as a ★★★★ City

12 – 17 Actions shall be recognized as a ★★★ City

8 – 11 Actions shall be recognized as a ★ City

ENERGY

Renewable Energy • Energy Efficiency • Climate Change

WASTE REDUCTION

Zero Waste • Manufacturer Responsibility • Consumer Responsibility

URBAN DESIGN

Green Building • Urban Planning • Slums

URBAN NATURE

Parks • Habitat Restoration • Wildlife

TRANSPORTATION

Public Transportation • Clean Vehicles • Reducing Congestion

ENVIRONMENTAL HEALTH

Toxics Reduction • Healthy Food Systems • Clean Air

WATER

Water Access & Efficiency • Source Water Conservation • Waste Water Reduction

ENERGY

Action 1 Adopt and implement a policy to increase the use of renewable energy to meet ten per cent of the city's peak electric load within seven years.

Action 2 Adopt and implement a policy to reduce the city's peak electric load by ten per cent within seven years through energy efficiency, shifting the timing of energy demands, and conservation measures.

Action 3 Adopt a citywide greenhouse gas reduction plan that reduces the jurisdiction's emissions by twenty-five per cent by 2030, and which includes a system for accounting and auditing greenhouse gas emissions.

WASTE REDUCTION

Action 4 Establish a policy to achieve zero waste to landfills and incinerators by 2040.

Action 5 Adopt a citywide law that reduces the use of a disposable, toxic, or non-renewable product category by at least fifty percent in seven years.

Action 6 Implement "user-friendly" recycling and composting programs, with the goal of reducing by twenty per cent per capita solid waste disposal to landfill and incineration in seven years.

URBAN DESIGN

Action 7 Adopt a policy that mandates a green building rating system standard that applies to all new municipal buildings.

Action 8 Adopt urban planning principles and practices that advance higher density, mixed use, walkable, bikeable and disabled-accessible neighborhoods which coordinate land use and transportation with open space systems for recreation and ecological restoration.

Action 9 Adopt a policy or implement a program that creates environmentally beneficial jobs in slums and/or low-income neighborhoods.

URBAN NATURE

Action 10 Ensure that there is an accessible public park or recreational open space within half-a-kilometer of every city resident by 2015.

Action 11 Conduct an inventory of existing canopy coverage in the city; and, then establish a goal based on ecological and community considerations to plant and maintain canopy coverage in not less than fifty per cent of all available sidewalk planting sites.

Action 12 Pass legislation that protects critical habitat corridors and other key habitat characteristics (e.g. water features, food-bearing plants, shelter for wildlife, use of native species, etc.) from unsustainable development.

TRANSPORTATION

Action 13 Develop and implement a policy which expands affordable public transportation coverage to within half-a-kilometer of all city residents in ten years.

Action 14 Pass a law or implement a program that eliminates leaded gasoline (where it is still used); phases down sulfur levels in diesel and gasoline fuels, concurrent with using advanced emission controls on all buses, taxis, and public fleets to reduce particulate matter and smog-forming emissions from those fleets by fifty per cent in seven years.

Action 15 Implement a policy to reduce the percentage of commute trips by single occupancy vehicles by ten per cent in seven years.

ENVIRONMENTAL HEALTH

Action 16 Every year, identify one product, chemical, or compound that is used within the city that represents the greatest risk to human health and adopt a law and provide incentives to reduce or eliminate its use by the municipal government.

Action 17 Promote the public health and environmental benefits of supporting locally grown organic foods. Ensure that twenty per cent of all city facilities (including schools) serve locally grown and organic food within seven years.

Action 18 Establish an Air Quality Index (AQI) to measure the level of air pollution and set the goal of reducing by ten per cent in seven years the number of days categorized in the AQI range as "unhealthy" or "hazardous."

WATER

Action 19 Develop policies to increase adequate access to safe drinking water, aiming at access for all by 2015. For cities with potable water consumption greater than 100 liters per capita per day, adopt and implement policies to reduce consumption by ten per cent by 2015.

Action 20 Protect the ecological integrity of the city's primary drinking water sources (i.e., aquifers, rivers, lakes, wetlands and associated ecosystems).

Action 21 Adopt municipal wastewater management guidelines and reduce the volume of untreated wastewater discharges by ten per cent in seven years through the expanded use of recycled water and the implementation of a sustainable urban watershed planning process that includes participants of all affected communities and is based on sound economic, social, and environmental principles.